Dec. 14, 1954 E. SCHLAAK 2,696,869

FOLDING LOUNGE CHAIR

Filed Oct. 19, 1953 2 Sheets-Sheet 1

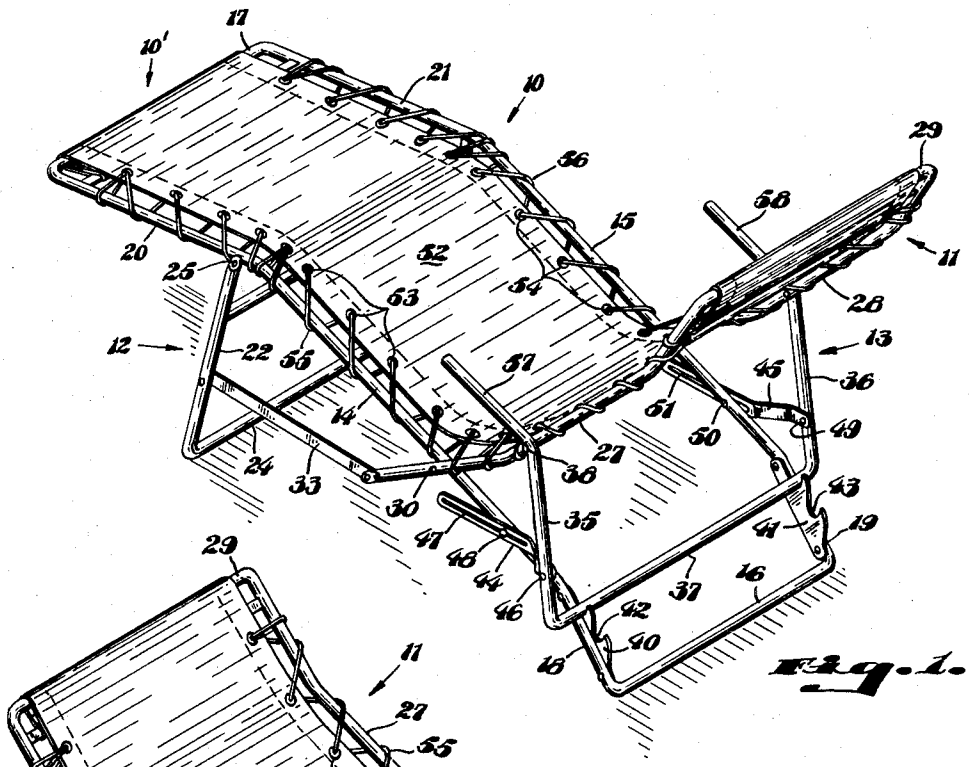


Fig. 1.

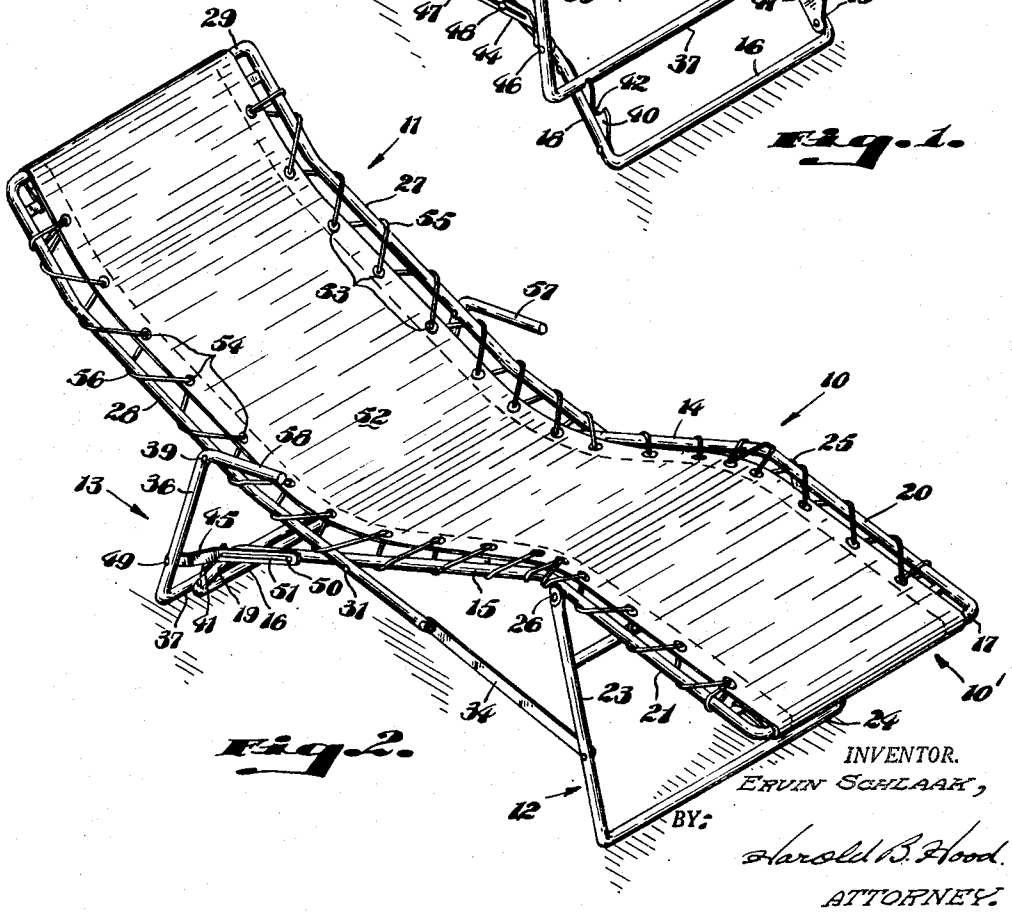


Fig. 2.

INVENTOR.
ERWIN SCHLAAK,
BY:
Harold B. Hood.
ATTORNEY.

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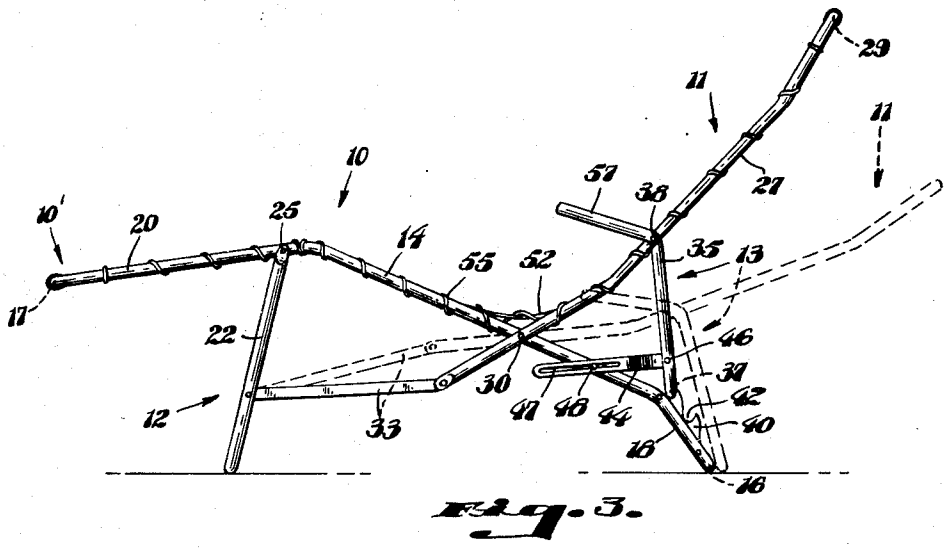


Fig. 3.

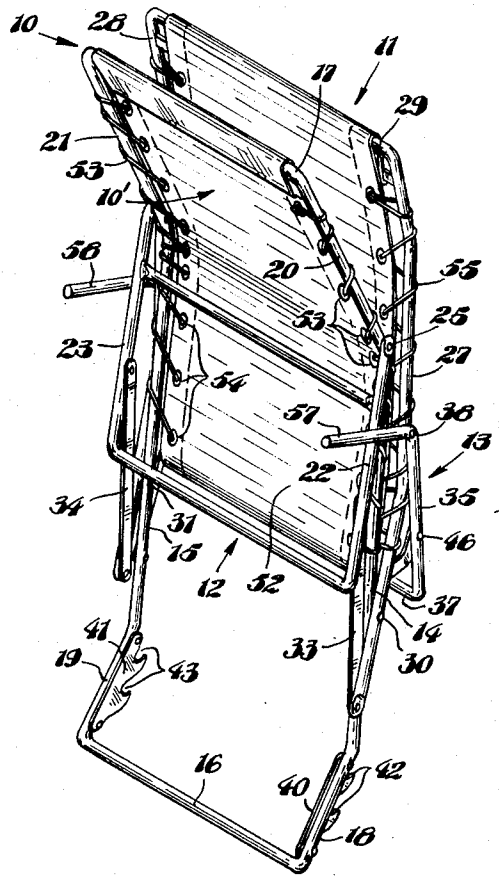


Fig. 4.

INVENTOR.
ERWIN SCHLAAK,
BY: Harold B. Hood.
ATTORNEY.

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FOLDING LOUNGE CHAIR

Ervin Schlaak, Muncie, Ind., assignor to Durham Manufacturing Corporation, Muncie, Ind., a corporation of Indiana

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7 Claims. (Cl. 155—117)

This invention relates to a folding lounge chair of the type including an integral leg-supporting portion.

The primary object of my invention is to provide such a lounge chair so constructed as to be capable of being folded into a compact package for shipping and for storage when not in use.

A further object is to provide such a chair in which the back-support portion can be selectively adjusted between a relatively upright position and a more nearly horizontal position.

Another object is to provide a structure in which the back, seat and leg-supporting members can be formed of a unitary panel of flexible material which can be easily attached to and removed from the chair frame.

A still further object is to provide foldable arm rests for such a chair.

Other objects will become apparent as the description proceeds.

To the accomplishment of the above and related objects, my invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawings are illustrative only, and that change may be made in the specific construction illustrated and described, so long as the scope of the appended claims is not violated.

Fig. 1 is a rear perspective view of a preferred form of chair embodying my invention shown in a position in which the back-supporting portion thereof is arranged in its most nearly vertical position;

Fig. 2 is a front perspective view of the chair shown in Fig. 1, but showing the back-supporting portion thereof in its most nearly horizontal position;

Fig. 3 is a side elevation of the chair of Fig. 1 shown in its position for use with the back-supporting portion thereof shown in its extreme upper and lower positions in solid and dotted lines, respectively; and

Fig. 4 is a perspective view showing the chair in its folded position.

Referring more particularly to the drawings, I have shown my chair comprising a base unit referred to generally by the reference numeral **10**, a back-supporting unit referred to generally by the reference numeral **11**, a front-leg unit referred to generally by the reference numeral **12**, and a back-brace unit referred to generally by the reference numeral **13**.

Base unit **10** is formed with a rectangular frame comprising substantially parallel side rails **14** and **15** and end rails **16** and **17** connecting together the opposite ends of said side rails. In its position for use, base unit **10** is arranged with the end rail **16** in floor-engaging position and with the side rails extending forwardly and upwardly from rail **16**. Preferably, the rear portions **18** and **19** of side rails **14** and **15**, respectively, are bent out of the plane of said rails and downwardly therefrom for a purpose later to become apparent.

In order to make the leg-supporting portion **10'** of the chair more closely conform to the contour of the human body, I prefer to bend the forward portions **20** and **21** of side rails **14** and **15**, respectively, out of the plane of said rails and downwardly, preferably a little past the horizontal, as clearly seen in Fig. 3.

The front leg unit **12** is formed with a U-shaped frame having side members **22** and **23** spanned by a base-portion **24**. The distal ends of the side members are pivotally connected, as at **25** and **26**, to base unit **10**, near the bend in the side rails **14** and **15** defining the forward leg-supporting portion **10'**, for swinging movement of said unit about an axis substantially perpendicular to said side rails.

The back-supporting unit **11** comprises an inverted U-shaped frame having substantially parallel side rails **27** and **28** connected by an end rail **29**. These side rails are pivotally connected, as at **30** and **31**, to the side rails **14** and **15**, respectively, intermediate the opposite end portions **18**, **19** and **20**, **21**, for swinging movement of said back-supporting unit about an axis substantially parallel to the axis of front-leg unit **12**.

It will be noted that the pivotal connections **30** and **31** are spaced slightly from the distal ends of side rails **27** and **28**.

To the distal end of side rail **27** is pivotally connected one end of a link **33**. The opposite end of this link is pivotally connected to the side member **22** of leg unit **12**, intermediate the ends thereof. A similar link **34** has one end pivotally connected to the distal end of side rail **27**, and the opposite end pivotally connected to the side member **23** of the leg unit **12**. Thereby, the front-leg unit **12** is operatively connected to swing in response to swinging movement of back-supporting unit **11**.

The back-brace unit **13** comprises a U-shaped frame having side members **35** and **36** and a base-portion **37**. Said side members are respectively pivotally connected to side rails **27** and **28**, at points **38** and **39** spaced upwardly from the pivotal connections **30** and **31** between the base unit and the back-supporting unit, for swinging movement of said back-brace unit about an axis substantially parallel to the axis of connections **30** and **31**.

A pair of indexing plates **40** and **41** are respectively fixed to the rear portions **18** and **19** of side rails **14** and **15** and are each formed with a plurality of upwardly opening notches or sockets **42** and **43**, spaced in the direction of rail portions **18** and **19**. The base-portion **37**, of back-brace unit **13**, is selectively enterable in the corresponding notches in plates **40** and **41** whereby the back-supporting unit **11** can be raised or lowered to vary the angular relation between said unit and said base unit **10**.

In order that the back-supporting unit **11** can be adjusted to a nearly horizontal position (as shown in dotted lines in Fig. 3), I provide a further pair of links **44** and **45**. Link **44** has one end pivotally connected, as at **46**, to the side member **35** of back-brace unit **13**. The link is axially slotted as at **47** and is supported on a shouldered stud **48** carried on the side rail **14** of base-unit **10**. Link **45** is similarly pivotally connected to side member **36**, as at **49**, and supported on side rail **15** upon a shouldered stud **50** extending through an axial slot **51** in said link. Links **44** and **45** are of such a length that the base portion **37** of back-brace unit **13** can be removed from the notches in plates **40** and **41** and placed on the floor in contiguity with the end rail **16** of base unit **10**. In this position, the shouldered studs **48** and **50** are seated against the ends of link-slots **47** and **51**. Thereby, the base-portion of the back-brace unit **13** is firmly held in this position.

The seat, back and leg-supporting members of the chair are comprised of a unitary panel **52** of flexible material providing, along the opposite edges thereof, two series of eyelets **53** and **54**. The ends of panel **52** are secured about the end rails **17** and **29**, of units **10** and **11**, respectively, and the panel is securely supported from the side rails **14**, **15**, **27** and **28** of units **10** and **11** by means of lacings **55** and **56** threaded through the respective eyelets and wrapped around the adjacent side rails. A sturdy and comfortable supporting surface for the entire length of the human body is thereby provided.

When desired, arm rests **57** and **58** can be provided conveniently merely by extending the side members **35** and **36** of back-brace unit **13** beyond the pivotal connection points **38** and **39** thereof and by turning these extensions out of the common plane of said side members and into a relatively horizontal plane, as most clearly to be seen in Fig. 3.

In Fig. 4, I have shown the chair in its folded condition. To so arrange the chair, it is necessary only to push the back-supporting unit forward to lie in substantial parallelism with the base unit **10**. In so doing, the

front-leg unit will be swung counter-clockwise (as viewed in Fig. 3) into substantial parallelism with said base unit as a result of the connection by links **33** and **34** between back-supporting unit **11** and the front-leg unit **12**. At the same time, the links **44** and **45** will move the base-portion **37** of the back-brace unit into a position closely adjacent to the back-supporting unit. The chair then presents a compact and easily storable package, occupying only a fraction of the space occupied when in its "use" position.

I claim as my invention:

1. A folding lounge chair comprising opposed side frame portions each comprising a seat-supporting member, a back-supporting member pivotally connected near the lower end thereof to said seat-supporting member at a point intermediate the ends thereof, said seat supporting member being arranged, when said chair is in its position for use, to extend forwardly and upwardly from one end thereof, said end being disposed in floor-engaging position, and said back-supporting member being arranged to extend upwardly and rearwardly from its connection with said seat-supporting member, a front-leg member pivotally connected to said seat-supporting member, at a point forward of said back-supporting member, and depending therefrom into floor-engaging position, link means pivotally connected at one end to the lower end of said back-supporting member and at the other end to said front-leg member at a point intermediate the ends thereof, and a back-brace member pivotally connected to said back-supporting member at a point spaced upwardly from said seat-supporting member.

2. The chair of claim 1 including an arm-rest member integral with said back-brace member and extending forwardly from the point of pivotal connection therewith.

3. The chair of claim 1 including means carried by said seat-supporting member adjacent the floor-engaging end thereof providing a plurality of indexing sockets, said one end of said back-brace member being enterable selectively in said sockets for adjusting the angular relation of said back-supporting member to said seat-supporting member, link means providing a yieldable connection between said seat-supporting member, at a point rearward of said back-supporting member, and said back-brace member at a point intermediate the ends thereof, said link means being pivotally connected to one of said members and axially, slidably supported on the other of said members, and said link means being of a length sufficient to permit the removal of said one end of said back-brace member from said sockets and the placing of said end upon the floor adjacent the floor-engaging end of said seat-supporting member.

4. A folding lounge chair comprising a rectangular base unit having laterally spaced, substantially parallel side rails and end rails connecting together the opposite ends of said side rails, one of said end rails being arranged, when said chair is in its position for use, in floor-engaging position with said side rails extending forwardly and upwardly therefrom, a U-shaped front-leg unit having the base-portion thereof arranged in floor-engaging position and the distal ends thereof pivotally connected to the opposite side rails of said base unit for swinging movement of said front-leg unit about an axis substantially perpendicular to said side rails at points spaced rearwardly from the other of said end rails, an inverted U-shaped back-supporting unit having laterally spaced, substantially parallel side rails and an end rail connecting together said side rails, said side rails being pivotally connected, at points spaced slightly from the distal ends thereof, to the side rails of said base unit at points spaced rearwardly from said front-leg unit for swinging movement of said back-supporting unit about an axis substantially parallel to the axis of said front-leg unit, a pair of link means each pivotally connected at one end to one side of said front-leg unit, intermediate the upper and lower ends thereof, and at the other end to the distal end of the respective side rail of said back-supporting unit whereby said front-leg unit will be moved in response to movement of said back-supporting unit, a U-shaped back-brace unit having the distal ends thereof pivotally connected to the opposite side rails of said back-supporting unit at points spaced upwardly from said base-unit, a seat member, means supporting said member along its opposite edges upon the side rails of said base-unit forward of said back-supporting unit, a back member, and means supporting said member along its opposite edges upon the side rails of said back-supporting unit.

5. The chair of claim 4 including a pair of arm rests for said chair, each being integral with a distal portion of said back-brace unit and extending forwardly from the point of pivotal connection thereof in a substantially horizontal plane.

6. The chair of claim 4 in which that portion of said base unit, forward of said front-leg unit, is bent out of the plane of said base unit into a relatively horizontal plane to form a leg-supporting portion for said chair, said chair further including a leg-supporting member supported along its opposite edges upon said forward portion of said base-unit.

7. The chair of claim 4 including notched indexing plates carried by the side rails of said base unit near said one end rail for selectively receiving and supporting the base portion of said back-supporting unit, a further pair of link means providing a yieldable connection between said back-brace unit and said base-unit, such link means each having one end pivotally connected to one side of said back-brace unit and the other end axially, slidably supported on the adjacent side rail of said base-unit at a point rearward of said back-supporting unit, said link means each being of a length such that the base-portion of said back-brace unit can be removed from the notches of said indexing plates and placed on the floor adjacent said base-unit to permit the lowering of said back-supporting unit into a more nearly horizontal position.

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