

**PATENTS EXAMINATION BOARD**

Subject: The Drafting of Patent Specifications - Paper 2  
Date: November/December 2010  
Time: 09h00-13h00  
Duration: Four hours (Candidates requiring extra time are entitled to an additional two hours)  
Examiners: J D Whittaker  
K Bredenkamp  
Moderator: K E F Brown

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Attached is an instruction from your client detailing an invention. An extract from a prior art patent specification located by a search is also attached.

You are required to draft a full patent specification for your client's invention taking into account the prior art. The full patent specification must include: (1) a background to the invention, (2) a summary of the invention, i.e. consistory clauses, (3) a brief description of the drawings, (4) a detailed description of the invention, (5) a set of patent claims, and (6) an abstract.

Marks will be allocated as follows:

- 50% of the marks will be allocated to the claims.
- 50% of the marks will be allocated to the rest of the specification.

In order to obtain a pass for this paper, candidates must obtain not less than 40% for each of these two sections.

Your client writes:

"We have invented an adjustable fishing chair which can be used on an incline.

Our chair is shown in the attached drawings. The first drawing, FIG. 1, shows our chair in a side view. FIG. 2 shows a portion of our chair from the rear, and FIG. 3 is a perspective view of a portion of our chair viewed from the rear. FIG. 4 is a cross-sectional view, taken along the line 4-4 in FIG. 3, and FIG. 5 is an enlarged view of the spring member illustrated in FIG. 4.

Our chair 10 includes a tubular seat frame 11 which is generally U-shaped and which has a rod 12 extending transversely through its ends 13. The frame 11 is covered with suitable webbing material 14 (see FIG. 3) which serves to form a comfortable seat for a user. A backrest frame 15 of similar shape to that of the frame 11 includes a pin 16 at each end 17 which extends transversely through the frame 15. The frame 15 is also covered with webbing material 14 to provide a comfortable backrest for a user.

A pair of tubular rear legs 18, one on each side of the frame 11, are secured by suitable fasteners 19 to outer surfaces of a pair of armrests 20 which in turn are secured to the sides of the frame 15 by suitable fasteners 21. The legs 18 telescopically receive the ends 22 of a U-shaped extension 23.

With reference to FIG. 4 and FIG. 5, at each upper end of the extension 23, a leaf spring 24 is secured in a suitable manner to the inner periphery 25 of the extension 23. Each spring 24 includes a tapered button 26 secured to its free end 27 for receipt within any of the equally spaced-apart

openings 28 in the respective legs 18 (see also FIG 3). The front legs 30 form part of a U-shaped structure that is pivotally secured to the frame 11 and the armrests 20 by suitable fasteners 31 to enable the chair 10 to be folded for carrying and storage.

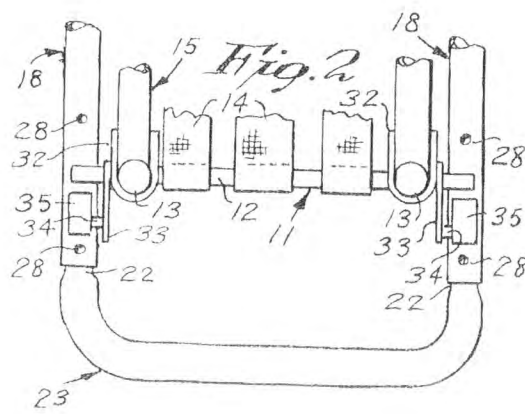
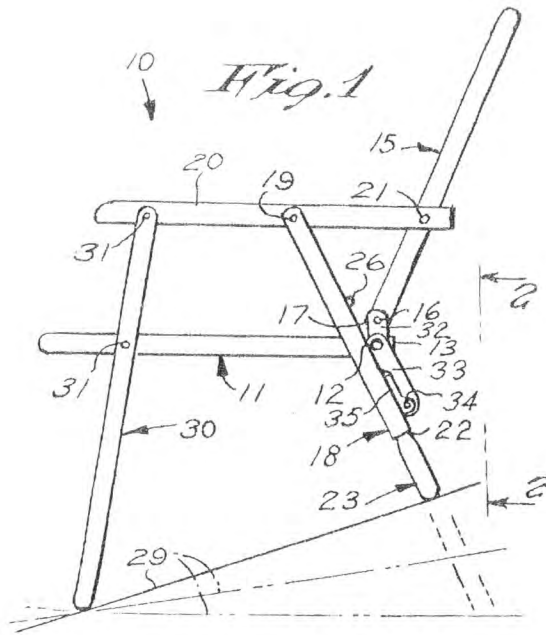
The pin 16 passes through ends of a pair of brackets 32 which are pivotally held at their opposite ends to the rod 12 of the frame 11. The ends of the rod 12 are pivotally received in arms 33 which are secured at opposite ends to a pin or bolt 34. Each pin 34 is pivotally received within one end of a plate 35 which is welded to the outside of one of the legs 18. The members 32, 12, 16, 33, 34 and 35 allow the rear portions of the chair 10 to be folded, and the extending ends of the rod 12 serve as stops against the outer periphery of the legs 18 when the chair 10 is unfolded.

In use, the chair 10 is first unfolded, and the frame 11, i.e. the seat portion, is maintained substantially level. To accommodate various degrees of slope on the ground 29, a user may urge the buttons 26 inwards, while gently pulling the extension 23 up or pushing this member down. The buttons 26 remain inside the legs 18 until the next openings 28 are reached, at which point the springs 24 cause the buttons 26 to snap out through the openings 28 to lock the extension 23 in place. In this way, the rear legs of the chair 20 may be adjusted by manipulating the legs 18 and the extension 23 to accommodate a number of different sloping conditions on the ground adjacent a river or a dam.

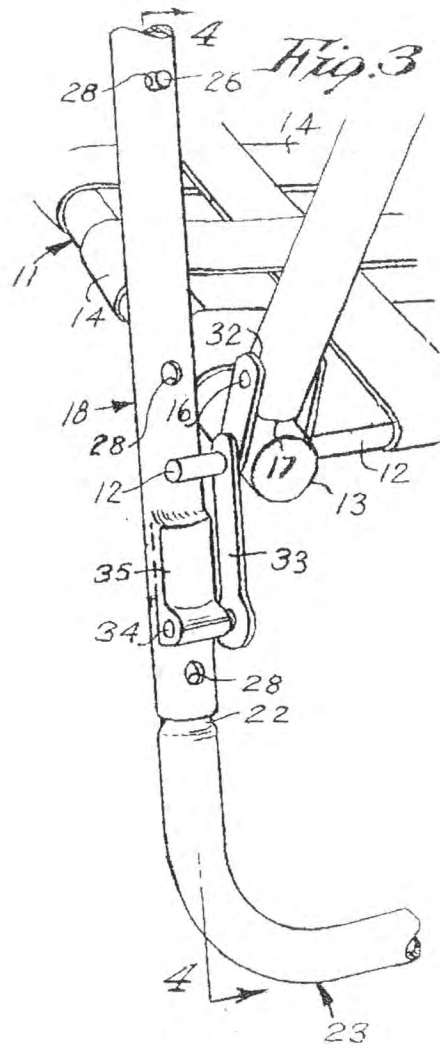
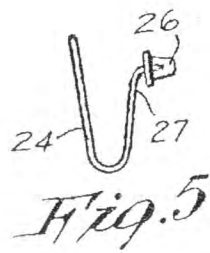
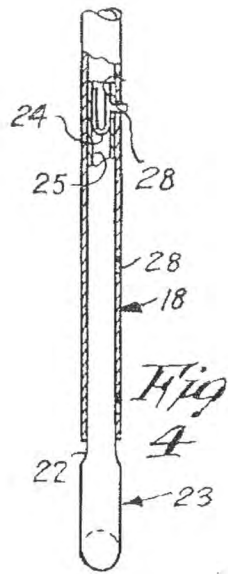
We believe that our invention will be very useful for fisherman in that it will allow them to sit comfortably on uneven ground next to a river or a dam. However, we also feel that our chair could be used with good effect by campers and various other users.

Please prepare a patent specification for our invention."

OUR INVENTION



OUR INVENTION



## PRIOR ART

In its broad aspect the device comprising the present invention contemplates a chair structure wherein a pair of chair side frame assemblies are provided and interconnected by means of flexible seat and back supporting elements or bands. The side frames are arranged so as to be foldable to occupy a minimum amount of space. Transverse brace means are provided for maintaining said side frames in parallel spaced relationship so that the seat and back bands are stretched therebetween and retained in taut condition, as for use. Said transverse bracing means are additionally disengageably connected with said side frame assemblies to thereby permit them to be detached from the side frames and to be thus collapsed and moved toward each other upon such removal of said bracing elements to thereby further reduce the amount of space occupied by the chair elements when thus folded and collapsed.

The general construction of a chair in accordance with the instant invention is illustrated in Figures 1 and 10. As may be seen from said figures, the chair comprising the instant invention includes a pair of side frame assemblies designated generally by the numerals 20 and 21 which are permanently interconnected by means of a flexible fabric seat 22 and a similar fabric back rest 23. The chair structure is completed by a plurality of transverse brace members which maintain the chair in assembled form but are disengageably associated therewith. Thus, as may be seen from the exploded view of Figure 10, the chair side frame assemblies are maintained in spaced apart relationship when the chair is assembled for use by means of front and rear transverse brace members 24 and 25 respectively which also act as base supports for the chair, a transverse back brace 26 and an intermediate transverse brace 27. The bracing members 24, 25, 26 and 27 act to maintain the side supports comprised of the side frame assemblies 20 and 21 in spaced apart relationship and to thereby stretch the seat and back rest of the chair therebetween and maintain it in taut condition to form a comfortable rigid and stable body supporting structure, as will more particularly be described hereafter.

As may be seen from Figures 1 and 10, as well as Figures 2 and 3, the side support frame assemblies 20 and 21 are similar for each side of the chair. Said support frames each include a front leg 28 and rear leg 29. These legs are advantageously formed of a tubular material, such as aluminum tubing, to provide a structure of adequate rigidity and strength while maintaining the benefits of a lightweight structure. Each of the side frame assemblies is additionally provided with an arm rest 30 positioned along the upper ends of each set of front and rear legs. Said arm rest 30 is advantageously formed of a right angled length of aluminum strip and extends, when the chair is assembled for use, parallel with the floor or ground support. The portion of said arm rest 30, which is thus disposed in a horizontal plane, provides a suitable arm rest for the person occupying the chair while the portion of the arm rest member disposed in a vertical plane permits the suitable pivotable connection of the other elements of the side assembly thereto. Each of the side frame assemblies is additionally provided with a substantially vertically disposed back rest supporting member 31 and a horizontal seat supporting bar 32. As may be more clearly seen from Figures 2 and 3, the upper extremities of the front and rear legs 28 and 29 are pivotally connected to the vertically disposed portion of arm rest 30, as shown at 33 and 34. An additional pivotal connection is provided between the rear extremity of the arm rest and the back supporting member 31 intermediate its ends as shown at 36. These pivotal connections may be accomplished by inserting rivets or bolts through registering perforations formed through the material of the arm, legs and back support. Each side frame assembly additionally includes a pivotal connection between an intermediate portion of front leg 28 and the horizontal seat supporting bar 32 as shown at 35.

A pivotal connection is provided between the lower extremity of back support member 31 and the rear extremity of seat supporting bar 32, as shown at 36 by means of a floating bracing link 37. Said bracing link 37 additionally provides a pivot point for rear leg 29 intermediate its ends as shown at 38. As may be more clearly seen from the foregoing figures and Figure 6, the bracing link 37 comprises a substantially L-shaped member formed with arms 41 and 42 respectively. Link 37 may be advantageously formed of a suitably bent metal rod or wire and is provided with terminal portions 39 and 40 extending at right angles with respect to the plane of said L-shaped portion. Terminal portion 39 of link 37 is passed through registering perforations formed in the lower extremity of back support member 31 and the rear extremity of seat supporting bar 32 and constitutes a common pivot pin therefor while terminal portion 40 of link 37 is passed through perforations formed in the walls of the tubular member comprising the rear leg 29 as shown at 38 and forms a pivot pin therefor. The end of terminal portion 39, which passes through the seat supporting bar 32, is provided with a threaded portion and locked in position by means of nut 43. The end of terminal portion 40 is similarly locked in position by means of a locking ring or washer 44.

It will be apparent from the foregoing that a parallel form of linkage is formed between the arm rest and seat supporting bar parallel therewith on the one hand and the back support member 31 and the front leg 28 on the other by reason of this pivotal interconnection. Rear leg 29 is pivotally connected at its upper extremity to the arm rest and is provided with a floating intermediate linkage to the chair back support 31 by means of the aforesaid link 37. As a result of this floating linkage between the rear leg and the remainder of the chair side support frame assembly, said side frame may be folded together in the manner illustrated in Figure 3. Said figure illustrates an intermediate stage in the process of folding the side frame assembly. For the purposes of clarity of illustration it will be understood however, that the side frame is capable of being and is actually further folded together to a position wherein all of the members comprising the side frame are substantially parallel and contiguous with each other and occupy a minimum amount of space. This condition is apparent in Figure 5 wherein an assembled chair is shown in folded condition. The folded condition of each of the side frames would of course be similar even with the transverse braces removed as when the chair is collapsed.

In addition to performing the function of providing a floating linkage between the lower and rear extremities of the back support member 31 and seat support bar 32 respectively, the link 37 also performs the function of acting as a brace for the chair when erected and in use. In this connection it should be noted that when the chair is erected for use, the L-shaped portion of the link bears against said leg and urges it toward the seat brace bar 32. Thus, the longer arm 41 of the side brace rests in parallel contact with a portion of rear leg 29 and serves as a brace therefor to materially reduce or completely prevent lateral sway in the chair when assembled for use. Additionally, the L-shaped portion of the link bearing against the leg body exerts sufficient friction to act as a lock for the chair to prevent it from being accidentally folded and further acts as a lock to maintain the chair in folded condition as illustrated in Figure 5 so as to prevent it from being accidentally opened. The pressure exerted by the link provides a sufficient frictional engagement between the parts to prevent this type of accidental movement while at the same time it does not act to increase the amount of effort required to open or fold the chair to an unreasonable extent.

PRIOR ART

FIG. 1.

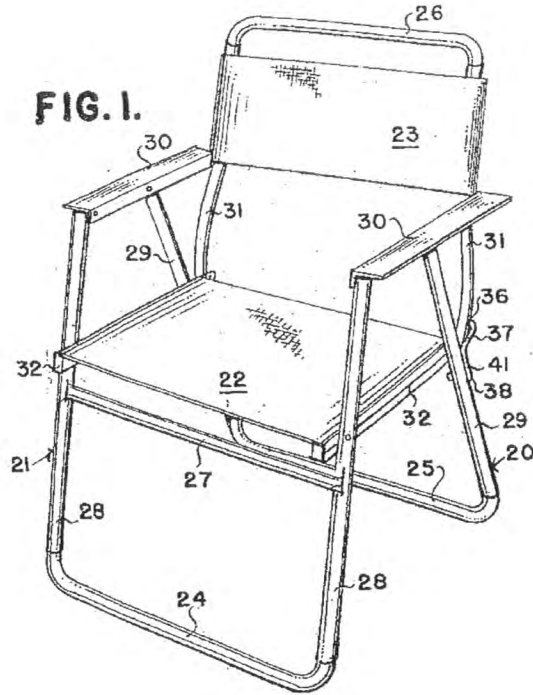


FIG. 3.

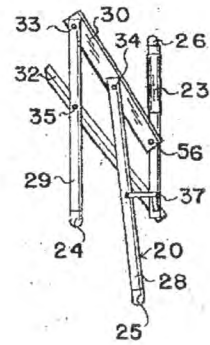
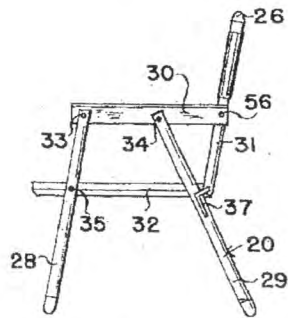


FIG. 2.



PRIOR ART

FIG. 5.

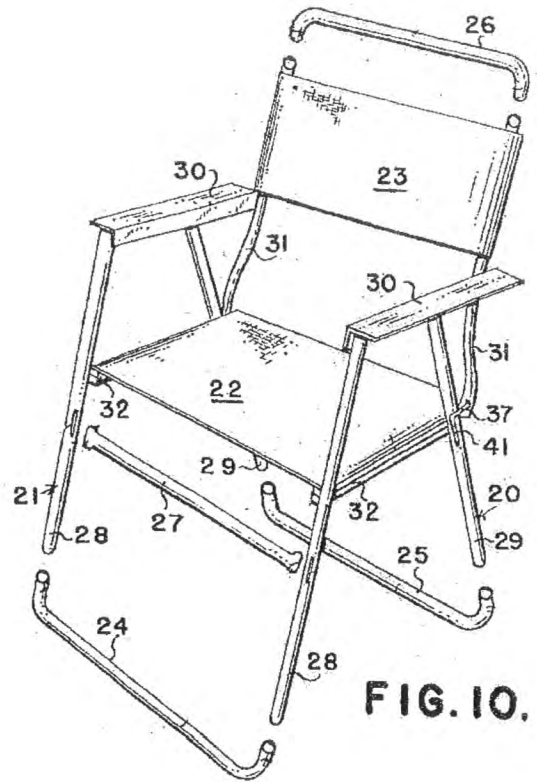
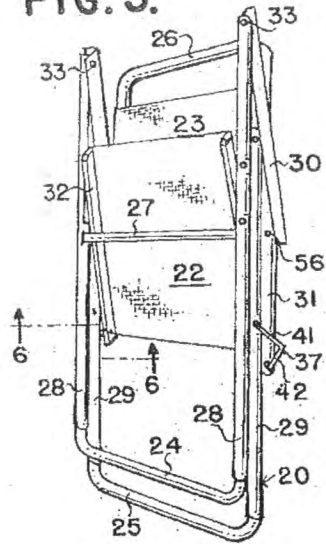


FIG. 10.

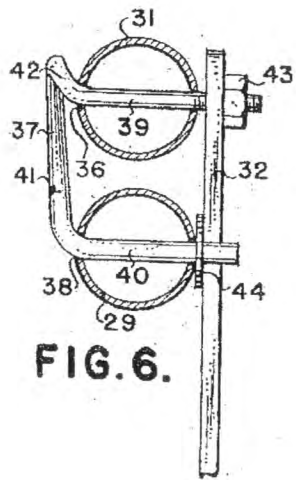


FIG. 6.