Aug. 15, 1967 A. E. GAMON 3,335,434

CHAIR CONSTRUCTION

Filed Oct. 23, 1965 2 Sheets-Sheet 1

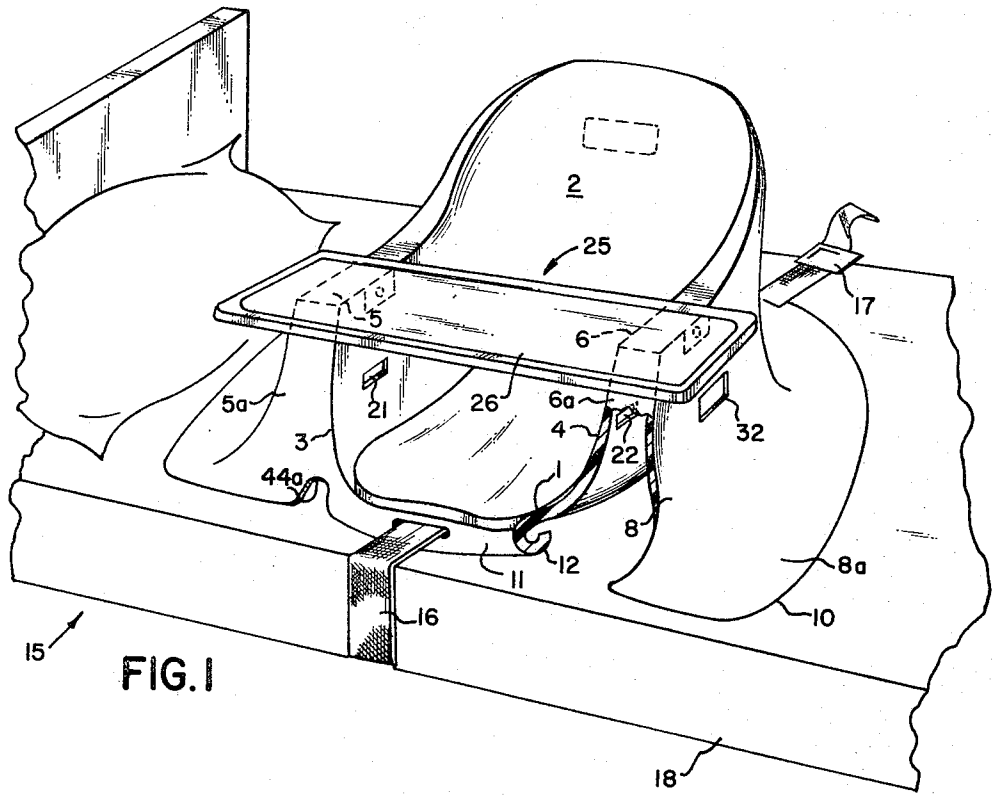


FIG. 1

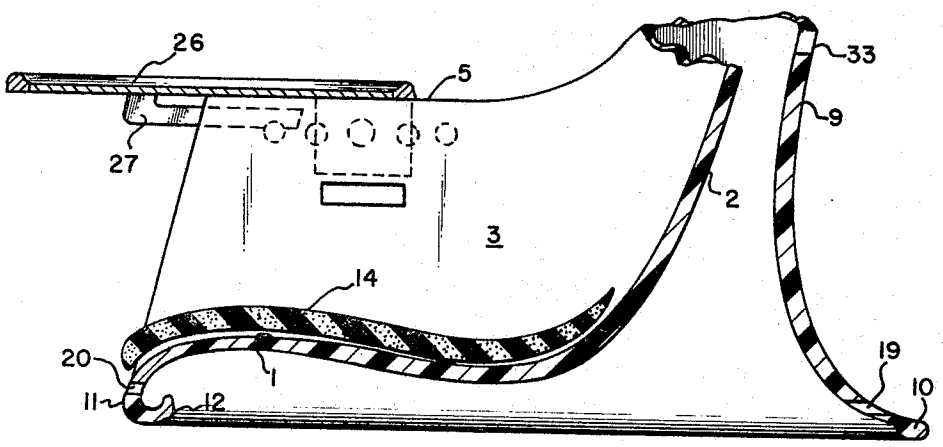


FIG. 2

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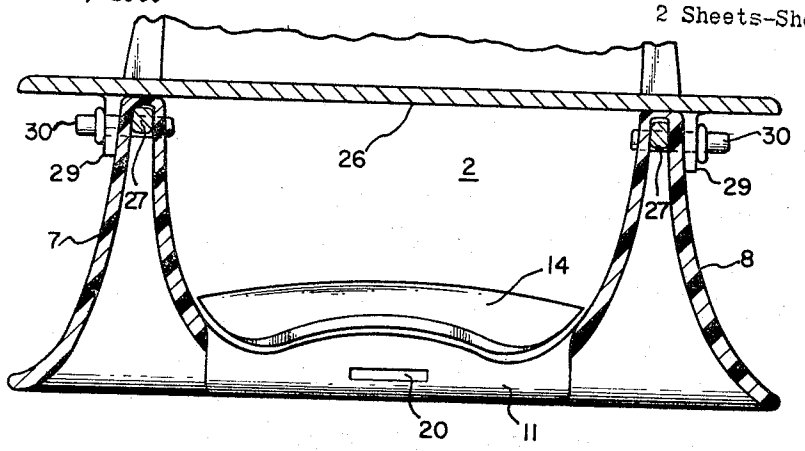


FIG. 3

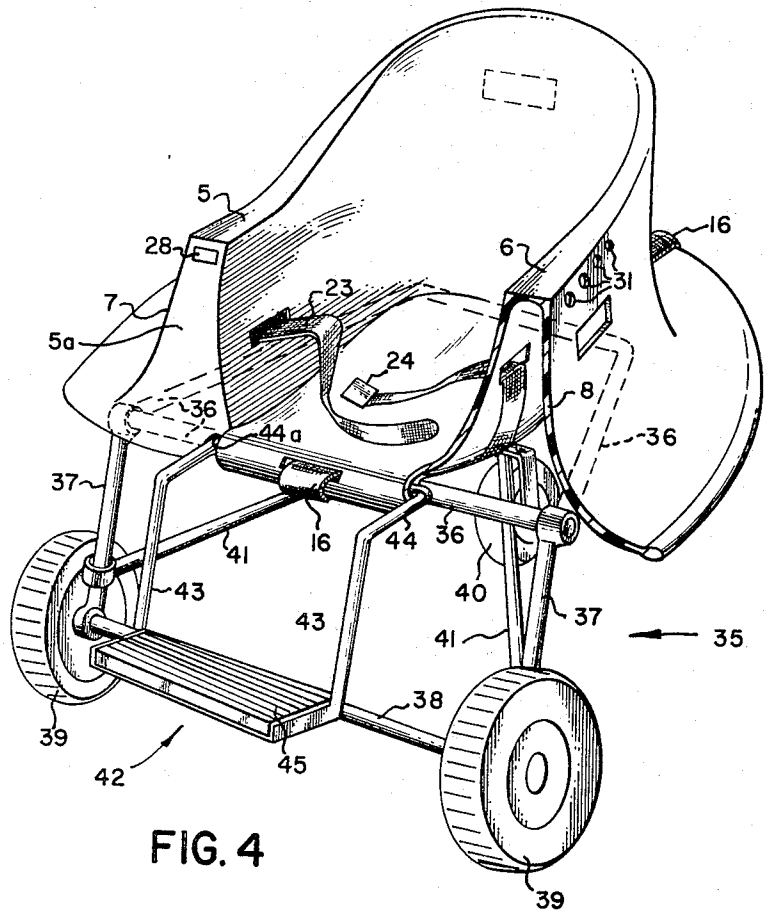


FIG. 4

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CHAIR CONSTRUCTION

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ABSTRACT OF THE DISCLOSURE

A legless chair having a seat joined to upstanding side and back members from which members depends a skirt the lower end of which flares outwardly and extends below the level of the seat to provide a wide and stable base for supporting the chair on a bed or the like.

This invention relates to a legless chair construction and more particularly to a chair which is especially adapted for use in supporting a patient on a bed in an upright sitting position, although the chair, if desired, may be supported on any one of a number of other kinds of supports.

A person who, for reasons of health or otherwise, must remain in bed over a period of several or more days will suffer a relaxation of his cardiovascular system. Upon sitting up, the blood will flow downwardly by gravity through the relaxed vessels, frequently resulting in faintness. Physicians seek to prevent cardiovascular relaxation by having patients assume an upright position gradually, and frequently have a patient sit on the edge of his bed with his feet and legs dangling without touching the floor. Sitting in such a position becomes uncomfortable rather quickly because of the strain imposed on a patient's back. Moreover, older persons have a tendency to fall to one side or the other, or forwardly, not only because they may be more unstable, but because of the faintness which may result from cardiovascular relaxation. If faintness should occur when a patient is sitting on the edge of his bed, a fall quite easily may result. Accordingly, it has been the usual practice heretofore to prop pillows behind and around the patient in an attempt to provide some support, but such a solution is not always effective inasmuch as the pillows are quite yieldable and are subject to sliding.

An object of this invention is to provide a chair which may be used to support a patient in comfort and with safety on the edge of a bed so as to permit the patient to obtain the benefits of sitting in an erect position.

Another object of the invention is to provide a chair of the character referred to and which is strong, light in weight, and inexpensive to manufacture.

A further object of the invention is to provide such a chair as has been described and which is capable of being securely fastened either to a bed or to some other kind of support.

Another object of the invention is to provide a chair which lends itself to removable connection to a wheeled frame, thereby enabling the chair to be used in the same manner as a wheel chair.

Other objects and advantages of the invention will be pointed out specifically or will become apparent from the following description when it is considered in conjunction with the appended claims and the accompanying drawings, in which:

FIGURE 1 is a fragmentary perspective view, partly in section, illustrating a chair constructed in accordance with the invention and secured to a bed;

FIGURE 2 is a fragmentary sectional view of the chair;

FIGURE 3 is a fragmentary, front elevational and partly sectional view of the chair; and

FIGURE 4 is a view similar to FIGURE 1, but illustrating the chair supported on a wheeled frame.

A chair constructed in accordance with the invention preferably is molded from a suitable plastic material such as styrene or the like and comprises a seat member **1** which preferably is formed with a concavo-convex upper surface, as is best illustrated in FIGURE 2, so as to provide a comfortable seat. At its rear edge, the seat merges smoothly with an upwardly and rearwardly inclined back member **2**. The side edges of the seat member and the side edges of the back member merge smoothly with upstanding side members **3** and **4**. To the upper edges of the side members **3** and **4** are joined outwardly extending, generally horizontal flanges **5** and **6**, respectively, which form arm rests having substantially flat surfaces which, adjacent their rear ends, extend upwardly and merge with the side edges of the back member **2**. To the outer edges of the flanges **6** is integrally joined a depending flange or skirt having opposite sides **7** and **8** which merge smoothly with a rear portion **9** so as to form an enclosure for the sides and back of the chair. At the lower ends of the skirt portions **7**, **8** and **9** are outwardly flared portions **7***a*, **8***a* and **9***a* which terminate in a beaded or reinforced rim **10** lying in a substantially horizontal plane at a level just below the level of the seat **1**. The rim **10** thus provides a large area base so as to form a stable support for the chair. To the forward edge of the arm rests **5** and **6** are joined downwardly extending skirt portions **5***a* and **6***a*, thereby providing a smooth and unitary construction.

Joined to the forward end of the seat member **1** is a downwardly extending flange **11** which terminates in a reversely turned lip **12**, the lower surface of which preferably is located in the same plane as the terminal edges of the skirt portions. The flange **11** forms a support for the forward edge of the chair seat and minimizes the risk of forward tilting of the chair.

The upper surface of the seat **1** preferably is pebbled or otherwise roughened so as to minimize the risk that a patient may slide out of the seat. If desired, a cushion **14** may be included so as to provide a comfortable seat.

A chair constructed in accordance with the invention is adapted to be fastened on a bed **15** and in such manner as to permit the occupant of the chair to dangle his feet over the edge of the bed. Means for securing the chair to the bed comprises a flexible strap **16** having a buckle **17** at one end and being of such length as to enable the belt to extend completely around the mattress **18** of the bed. Openings **19** and **20** are provided in the chair members **9** and **11**, respectively, so as to permit the belt to extend through the chair below the level of the seat **1**.

As a further precaution against the possibility of a patient's falling out of the chair, the side members **3** and **4** may be provided with openings **21** and **22**, respectively, through which the opposite ends of a safety belt **23** (see FIGURE 4) may extend, the central portion of the belt extending around and beneath the seat member **1**. The belt **23** may have a buckle **24** at one end by means of which the safety belt may be drawn snugly about the body of the patient.

In many instances it may be desirable to support a tray **25** or the like on the arms of the chair. The tray may comprise a generally flat member **26** of such length as to span the arm rests **5** and **6**, as is indicated in FIGURE 1. To the lower surface of the member **26** may be fixed a pair of mounting arms **27** which are spaced apart a distance corresponding to the spacing between the arm rests and which may be removably accommodated in openings **28** formed in the skirts **5***a* and **6***a*. Also fixed to the lower surface of the tray **26** is a pair of spaced apart brackets **29** through each of which slideably extends an anchor pin **30** that is adapted to be accommodated in any one of a plurality of openings **31**

provided in the adjacent skirt portion 7 or 8 so as adjustably to secure the tray to the chair.

To facilitate handling of the chair, the skirt portions 7 and 8 are provided with hand openings 32 and a similar opening 33 may be provided in the skirt portion 9.

A chair constructed in accordance with the invention also is adapted to be supported on structures other than beds. For example, the chair may be mounted on a wheeled support 35 comprising a framework formed of generally horizontal frame members 36 on which the lower edges of the chair may rest. The front frame member 36 may be accommodated between the seat 1 and the lip 12, as is indicated in FIGURE 4. Secured to and depending from the upper frame members 36 are uprights 37 at the front of the frame and a similar upright (not shown) at the rear of the frame. Spanning the front uprights 37 is an axle 38 on which is journalled a pair of wheels 39. Swivelly mounted on the rear upright is a rear wheel 40. Suitable braces 41 interconnect the front and rear uprights to provide the requisite rigidity.

When the chair is supported on the wheel frame 35, the chair may be securely anchored thereto by the strap 16.

Preferably, a foot rest 42 is included and comprises a generally U-shaped frame composed of parallel side bars 43 interconnected by a web member 44 which may be accommodated by the lip 12 of the flange 11. Recesses 44*a* may be provided in the skirts 5*a* and 6*a* at opposite ends of the flange 11 to accommodate the bars 43. A foot board 45 interconnects the opposite ends of the side bars 43. If desired, the side bars 43 may be formed of two telescoping sections so as to provide for vertical adjustment of the footboard 45. The footrest may be supported by the wheeled frame or, if desired, may be suspended from the lip 12 so as to enable the footrest to be used with the chair when the latter is supported on a bed.

The disclosed embodiment is representative of the presently preferred form of the invention, but is intended to be illustrative rather than definitive thereof. The invention is defined in the claims.

I claim:

1. A legless chair construction comprising a seat member having front, side and rear edges; a back member extending upwardly from the rear edge of said seat; side members extending upwardly from the side edges of said seat; and side and rear flange means joined respectively to said side and rear members and extending downwardly to a level just below the level of said seat member for supporting said chair on a support, said side flange means extending laterally away from the associated said side edges of said seat member and said rear flange means extending rearwardly away from the rear edge of said seat member.

2. The construction set forth in claim 1 including a support member joined to and extending downwardly from the front edge of said seat member to the level of said side and rear flange means.

3. The construction set forth in claim 1 including means carried by said side flange means for removably accommodating a tray.

4. The construction set forth in claim 1 including fastening means carried by selected ones of said flange means for removably fastening said chair construction on said support.

5. The construction set forth in claim 1 including fastening means connected to said support and to at least two of said flange means for removably fastening said chair construction on said support.

6. A unitary, legless chair construction comprising a seat member joined at its two side edges to upstanding side members and joined at its rear edge to an upstanding back member; and a support member extending around said side members and said back member and joined to the upper edges of said side and back members, said support member being flared downwardly and away from said side and back members and terminating at its lower edge in a plane lying just below the level of said seat member whereby said seat and back members may be supported on a supporting member.

7. The construction set forth in claim 6 wherein said seat member has a downwardly extending flange at its forward end, said flange terminating at its lower end in said plane.

8. The construction set forth in claim 7 wherein the upper ends of said support member adjacent the forward end of said seat member are substantially flat for supporting thereon a tray.

9. The construction set forth in claim 8 including means carried by said support member for releasably latching said tray on said support member.

10. A molded, unitary chair construction adapted to be removably supported on a bed or the like, said construction comprising a seat member having front, rear and side edges, said seat member merging at its rear edge with an upstanding back member and said side edges of said seat member merging with upstanding side members to form a three-sided body; a three-sided skirt member integrally joined to said side and back members at the upper ends thereof and extending downwardly and away from said side and back members to form a three-sided base terminating in a plane just below the level of said seat member; a flange integrally joined to the front edge of said seat member and extending downwardly therefrom and terminating in said plane to form a fourth side for said base; and strap means extending through said flange and skirt member beneath said seat member for removably securing said body to a bed or the like.

11. The construction set forth in claim 10 wherein the lower end of said flange is reversely bent to underlie the front edge of said seat member and is spaced therefrom.

12. The construction set forth in claim 11 wherein said flange has a recess therein at its opposite ends.

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