ADJUSTABLE FOOTREST FOR CHAIRS AND INVALID BEDS

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FIG. 1

FIG. 2

FIG. 3

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ADJUSTABLE FOOTREST FOR CHAIRS AND INVALID BEDS

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4 Claims. (Cl. 5—80)

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This invention relates to an adjustable foot rest for articulated bed structures.

The chief object of the present invention is to hydraulically shift a foot rest upon a movable bed section movably mounted upon a portable frame as desired.

The chief feature of the present invention resides in the mechanism for shifting said foot rest and maintaining same in adjusted position.

A further feature resides in the non-binding relationship of the several parts.

Other objects and features of the invention will be set forth more fully hereinafter.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

In the drawings Fig. 1 is a perspective view of the forward end of an articulated bed structure in chair position with the foot rest in extreme retracted position.

Fig. 2 is a similar view of the same parts in foot rest extended position.

Fig. 3 is an end elevation looking upwardly toward the bottom of the leg section of the bed upon which the foot rest is movably mounted.

In Figs. 1 and 2 of the drawing, 10 indicates the side frame of an articulated bed provided with casters 11 for portability. The so-called seat section having a frame 12 may be rigidly or pivotally mounted upon the frame as desired or required and same is not herein shown because it forms no part of the present invention.

Upon the forward end of the seat section frame, as indicated at 13, there is pivotally mounted the leg section frame 14 and same is movable relative to the seat section frame as well as movable therewith if the frame 12 be movably mounted upon frame 10.

The foot rest herein includes frame 15 with parallel arms 16. The rest proper 17 is carried by said frame and same is substantially transverse to section 14 at all times. Section frame 14 includes auxiliary side frame members 18 and the cross member 19.

Pivoted to each arm 16 at 20 and 21 are links 22 and 23, respectively, pivotally mounted on adjacent frame member 18. Rigid with arm 16 and extending pivotally from pivot 25 is the arm 26 which at its free end is pivotally mounted at 27 to the free end of piston rod 28 mounting a piston (not shown) in cylinder 29 pivoted at the opposite end as at 30 to bracket 31 also carried by frame member 18.

The aforesaid is duplicated at opposite sides of the leg section frame 14. A single conduit 32 branches as at 33 and 34 to the pivoted ends of cylinders 29. When pressure fluid is applied to line 32 both pistons are moved and the connecting rods 28 are moved simultaneously and to the same extent.

When the pressure supply is discontinued and the pressure is held in the cylinders by means not shown the foot rest is held in the adjusted retracted position. When the pressure is released the parts return to foot rest extended position by gravity or by spring means (not shown) if positive extending power is desired.

Since the normal position of the foot rest is in extended relation such addition normally is unnecessary. The foregoing mechanism, in effect, constitutes a parallel motion device so that, in effect, foot rest 15—16—17 moves substantially parallel to leg section frame 14 at all times.

Section frames 12 and 14 are illustrated with mattress portions applied thereto. The pressure supply source and valve control for conduit 32 are omitted for the reason that they are old in this art. Suffice to state, line 32 serves as a supply line, exhaust line and a pressure holding line, exhaust line and a pressure holding line for the cylinder, etc.

The invention claimed is:

1. In a foot rest structure for an articulated bed, the combination with a tiltable mounted leg section frame and a foot rest disposed across the same and substantially transverse thereto, of a pair of parallel links pivotally carried at each side of the section frame and pivotally connected to the foot rest, an arm rigid with one link, a cylinder pivotally mounted upon the section frame at the adjacent side thereof, and a piston rod slidable relative to the cylinder and tittable therewith and pivotally connected to the said arm in spaced relation to the link pivotal support of same, whereby relative sliding movement between said piston rod and said cylinder effects movement of said foot rest relative to said section frame.

2. Structure as defined by claim 1 wherein a single conduit is connected to the pivoted end of the cylinder for piston control.
3. Structure as defined by claim 1 wherein the arm constitutes an extension of the link pivoted most remote from the cylinder pivot.

4. The structure as defined by claim 1 wherein a cylinder is pivotally mounted upon the section frame adjacent each side thereof and wherein there is a single conduit of branch type, each branch being connected with a pivoted end of one of said cylinders for piston control.

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