United States Patent [19]

Schultz

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[54] **LEG SUPPORT FOR INVALID CHAIR**

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[52] **U.S. Cl.** **297/433,** 297/429, 297/DIG. 4

[51] **Int. Cl.** **A47c 7/50**

[58] **Field of Search** 292/433, 408, 434, 292/435, 426, 437, 429; 248/284, 291, 226

[56] **References Cited**

UNITED STATES PATENTS

2,826,242	3/1958	Thompson	297/433
980,580	1/1911	Williams	248/226

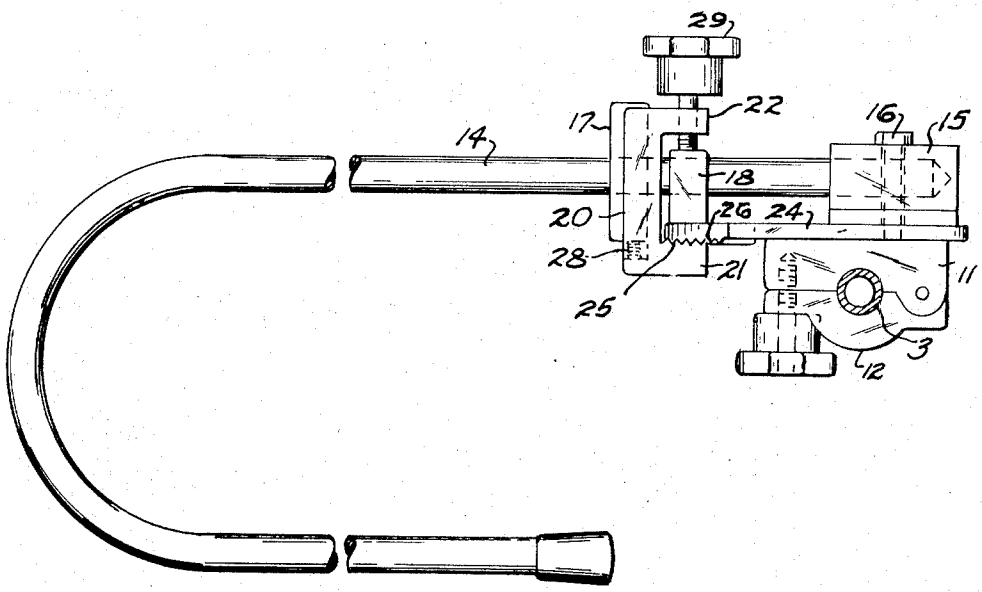
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[57] **ABSTRACT**

Structure including a clamp with opposed jaws, applicable to and removable from the frame of an invalid's chair, and an elongated cradle, for supporting the leg of a user seated in the chair with his leg extending outwardly from the chair seat, is pivoted at one end to the clamp. A locking screw is threaded through the cradle and into contact with the clamp to hold the cradle in selected angular positions relative to the clamp. When the locking screw is loosened, the cradle is disengaged automatically from the clamp jaw to swivel freely on the clamp, thus facilitating adjustment by a person in the chair or near it.

2 Claims, 3 Drawing Figures



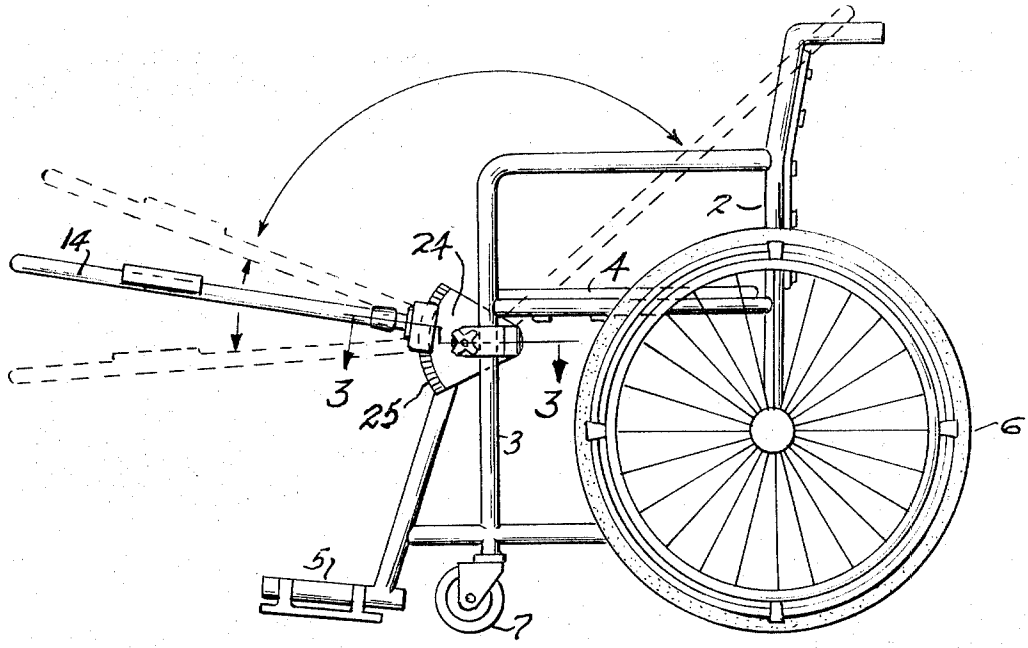


FIG. 1

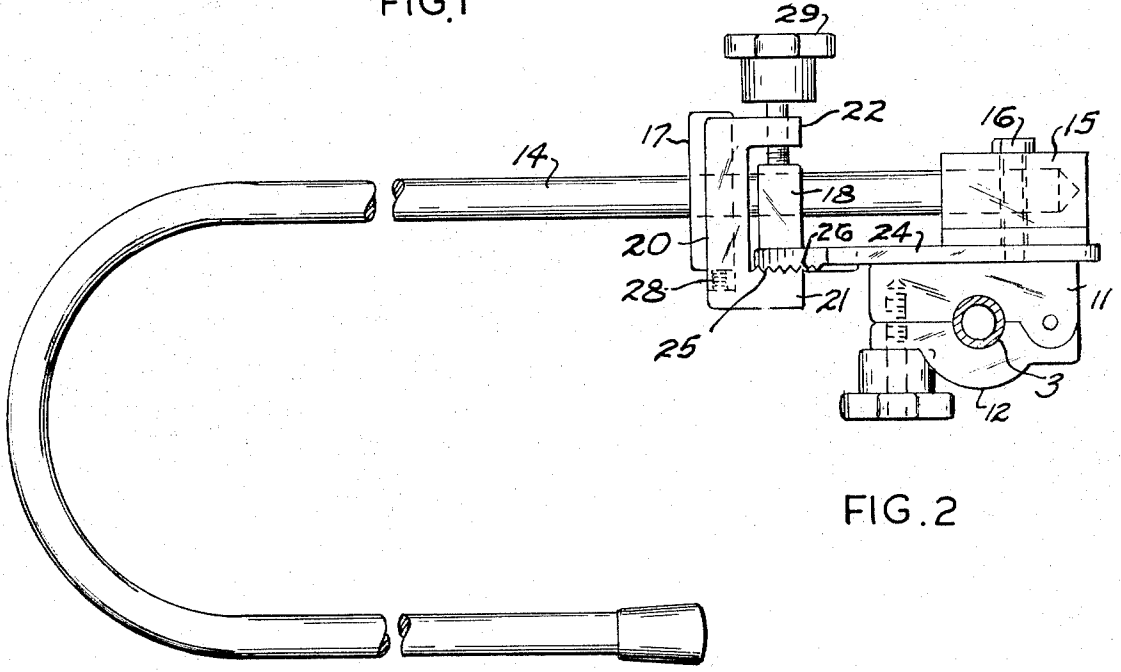


FIG. 2

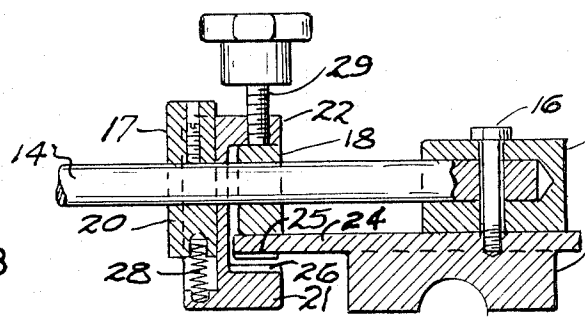


FIG. 3

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LEG SUPPORT FOR INVALID CHAIR

The device is an improvement upon the leg support described in United States Pat. No. 2,826,242 issued March 11, 1958. The main object of the invention is to facilitate the angular adjustment of the leg support relative to the chair seat and particularly when the adjustment is made by a person seated in the chair.

In the accompanying drawings illustrating the invention:

FIG. 1 is a side elevation of an invalid's wheel chair having the leg support applied thereto.

FIG. 2 is a top view of the leg support shown in FIG. 1 but drawn to a larger scale.

FIG. 3 is a horizontal section on line 3—3 of FIG. 1.

The chair frame includes a pair of rear upright members 2, forward upright members 3, a horizontal seat 4, a foot platform 5, all mounted upon a pair of main wheels 6 and smaller pilot wheels 7.

The leg supporting unit detailed in FIGS. 2 and 3 comprises a pair of clamping jaws 11, 12 embracing an upright chair frame member 3 between them. The leg support is of J or U shape and has an end of one arm 14 retained in a socket 15 pivoted by a bolt 16 to clamp jaw 11.

Transversely disposed blocks 17 and 18 are fixed on cradle arm 14. A channel-shaped block includes a web 20 and flanges 21, 22. Web 20 is grooved to receive and slide on block 17.

Clamp jaw 11 includes an integral sector-shaped plate 24 extending parallel to the cradle and has an arcuate row of ridges 25 extending radially of pivot bolt 16 and spaced therefrom.

Flanges 21, 22 oppose oppositely disposed faces of plate 24 and block 18 respectively. Flange 21 has ridges 26 engageable with ridges 25 when the parts are positioned as shown in FIG. 2. A locking screw 29 is threaded through channel flange 22 and its inner end 27 normally seats against block 18 and thrusts ridges 25 against ridges 26 of channel flange 21. The ends of a compression coil spring 28 (FIG. 3) are received in respective recesses in block 17 and in a lip 31 on the back of the channel web.

When locking screw 29 is loosened, spring 28 tends to thrust channel flange 21 away from plate 24 so that the ridges 25 and 26 disengage and the cradle may swivel freely on pivot bolt 16 to an angular position selected by a user having a leg supported on the cradle. Screw 26 may then be tightened to reengage ridges 25 and 26 to maintain the leg support in the selected position.

The locking screw is readily manipulated by the person seated in the chair, and the cradle is reversible top to bottom for application to opposite sides of a chair and to place the locking screw convenient to the hand of the user in either position.

A person seated in the chair with one leg extending outwardly from his body may reach downwardly with one hand at the same side as the leg and loosen the locking screw and readily adjust the angle of the leg cradle with the same hand. It is not easy to reach down to that level with both hands at opposite sides of his leg, or of the support, and clamp with one hand and simultaneously shift the toothed block away from the toothed segment with the other hand. The spring release of the interengaged ridges makes this unnecessary.

The interlocking means and other elements may be varied without departing from the spirit of the invention as set forth in the appended claims.

I claim:

1. In a unit for ready application to and removal from an invalid's chair, a clamp for gripping a chair frame member, an elongated cradle for supporting the leg of a person seated in the chair, a pivot pin mounting the cradle on said clamp for angular adjustment of the cradle on the chair, two blocks fixed to said cradle, spaced apart and spaced from said clamp, an upright plate fixed to said clamp with one side slidable vertically over one of said blocks and the other side provided with a row of ridges extending transversely of said cradle, a channel member slidable over the other of said blocks transversely of said plate and having a row of ridges opposing said plate ridges, a spring positioned between said channel member and the latter-mentioned block for biasing the ridged plate and block flange apart and thereby freeing said cradle for pivotal adjustment about said pivot pin, and a manually operable device on the other flange of said channel member for positively holding said plate and flange ridges selectively interengaged against the thrust of said spring and thereby maintaining said cradle at adjusted angles.

2. A unit as described in claim 1 in which the force-supplying means extends away from the clamp and cradle for ready manipulation by the hand of a person seated on the chair with a leg supported on the cradle.

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