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[54] **WHEELCHAIR STEERING APPARATUS**

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[52] **U.S. Cl.** ..... **280/269,** 280/242 WC, 297/DIG. 4

[51] **Int. Cl.** **B62b 11/00**

[58] **Field of Search** .....280/69, 42, 289, 269, 280/242 WC; 297/423, 429, 436, DIG. 4

[56] **References Cited**

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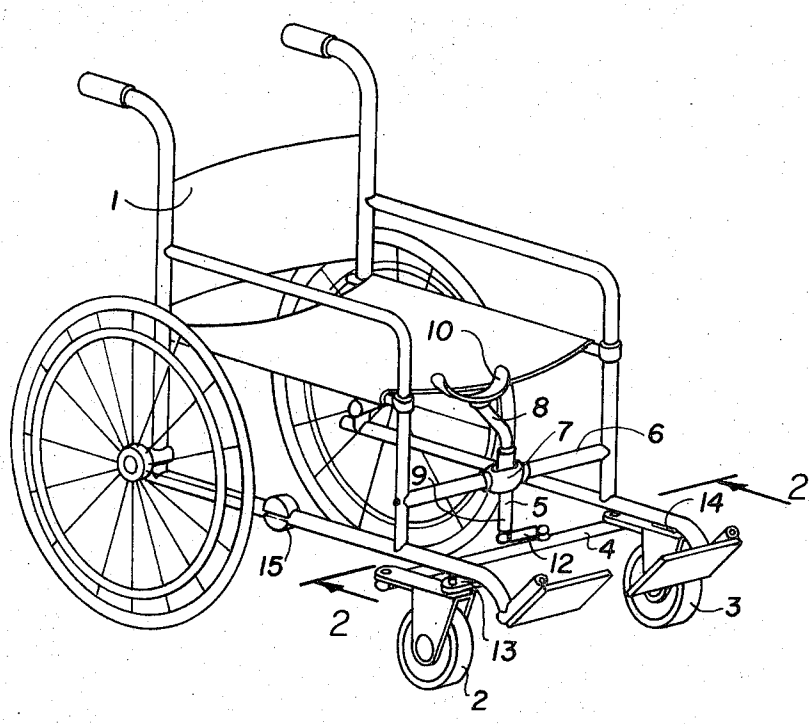
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[57] **ABSTRACT**

Apparatus for steering a wheelchair having two pivotally mounted front wheels comprises a connecting rod removably coupled to the front wheels to move the front wheels in unison. A pivot rod is mounted in substantially upright position in a cross rod for movement side to side relative to its axis. A leg rest is affixed to the upper end of the pivot rod in a manner whereby the leg rest and the pivot rod move together relative to the axis of the pivot rod. A radius rod couples the lower end of the pivot rod to the connecting rod in a manner whereby movement of the pivot rod to either side relative to its axis moves the connecting rod in a corresponding direction in a substantially horizontal plane to rotate the front wheels in unison about their pivots so that an occupant of the wheelchair steers the wheelchair with a leg by resting the leg on the leg rest and moving the leg in the desired direction.

3 Claims, 2 Drawing Figures



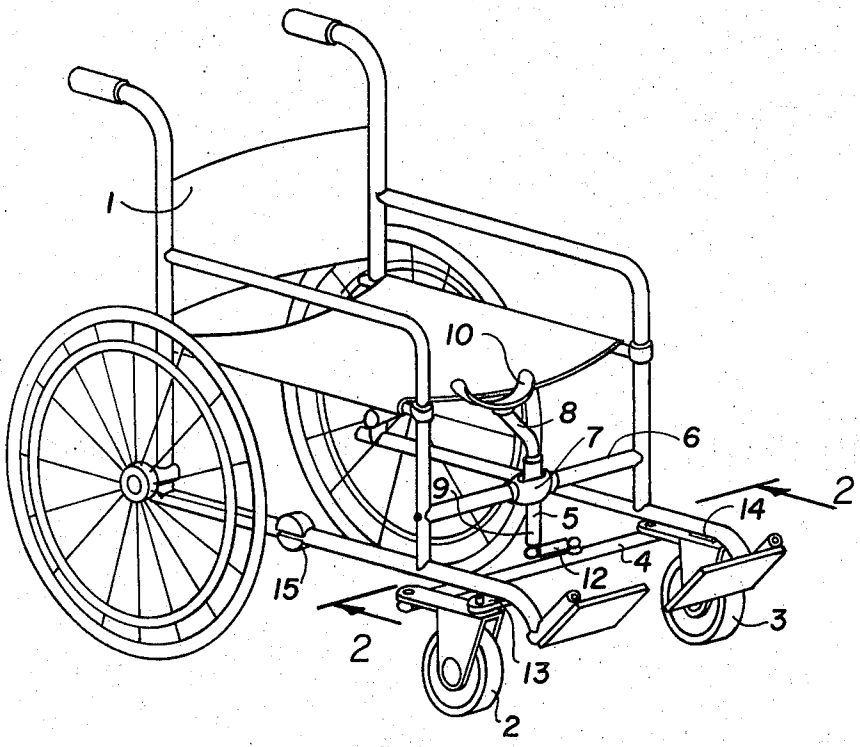


FIG. 1

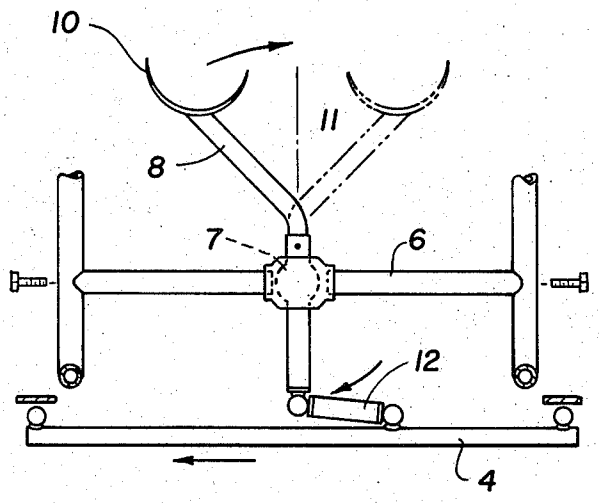


FIG. 2

WHEELCHAIR STEERING APPARATUS

DESCRIPTION OF THE INVENTION

The present invention relates to a wheelchair. More particularly, the invention relates to apparatus for steering a wheelchair.

The principal object of the invention is to provide apparatus of simple structure for steering a wheelchair with efficiency, effectiveness, reliability, ease, facility, convenience and comfort by using a leg.

In order that the invention may be readily carried into effect, it will now be described with reference to the accompanying drawing, wherein:

FIG. 1 is a schematic diagram of an embodiment of the wheelchair steering apparatus of the invention mounted on a wheelchair; and

FIG. 2 is a view, taken along the lines 2-2, of FIG. 1.

In the FIGS., the same components are identified by the same reference numerals.

The apparatus of the invention is for steering a wheelchair 1 having two pivotally mounted front wheels 2 and 3 (FIG. 1). The apparatus of the invention comprises a connecting rod 4, removably coupled, to permit disassembly of the wheelchair 1 to the front wheels 2 and 3 to move the front wheels in unison.

A pivot rod 5 is mounted in a substantially upright position via a cross rod 6 and a ball joint 7 for movement side to side relative to its axis. The pivot rod 5 has an upper end 8 and a lower end 9. The cross rod 6 is removably affixed to the frame of the wheelchair to permit disassembly of the wheelchair.

A leg rest 10 is affixed to the upper end 8 of the pivot rod 5 in a manner whereby the leg rest and the pivot rod move together relative to the axis 11 (FIG. 2) of the pivot rod. The leg rest 10 comprises molded plastic shaped to accommodate a leg in the area of the underside of the knee.

A radius rod 12 couples the lower end of the pivot rod 5 to the connecting rod 4, at a point spaced from the midpoint of the connecting rod, in a manner whereby movement of the pivot rod to either side relative to its axis 11 moves the connecting rod in a corresponding direction in a substantially horizontal plane to rotate the front wheels 2 and 3 in unison about their pivots 13 and 14 (FIG. 1). Thus, an occupant of the wheelchair (not shown in the FIGS.) steers the wheelchair with a leg by resting the leg on the leg rest 10 and moving the leg in the desired direction.

A conventional clip 15 (FIG. 1) is affixed to the frame of the wheelchair 1 for removably supporting a tool such as, for example, a wrench, for disassembling the wheelchair.

While the invention has been described by means of specific examples and in specific embodiments, I do not wish to be limited thereto, for obvious modifications will occur to those skilled in the art without departing from the spirit and scope of the invention.

I claim:

1. Apparatus for steering a wheelchair having two pivotally mounted front wheels, said apparatus comprising

a connecting rod removably coupled to the front wheels to move the front wheels in unison;

a cross rod affixed to the wheelchair;

a pivot rod mounted in a substantially upright position in the cross rod for movement side to side relative to its axis, said pivot rod having an upper end and a lower end;

a leg rest affixed to the upper end of the pivot rod in a manner whereby the leg rest and the pivot rod move together relative to the axis of the pivot rod; and

a radius rod coupling the lower end of the pivot rod to the connecting rod in a manner whereby movement of the pivot rod to either side relative to its axis moves the connecting rod in a corresponding direction in a substantially horizontal plane to rotate the front wheels in unison about their pivots so that an occupant of the wheelchair steers the wheelchair with a leg by resting the leg on the leg rest and moving the leg in the desired direction.

2. Apparatus as claimed in claim 1, wherein the leg rest comprises molded plastic shaped to accommodate a leg in the area of the underside of the knee.

3. Apparatus as claimed in claim 1, further comprising a clip on the wheelchair for removably supporting a tool for disassembling the wheelchair.

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