May 11, 1954 T. L. McKINLEY 2,678,087

INVALID'S BED CHAIR

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Fig. 5.

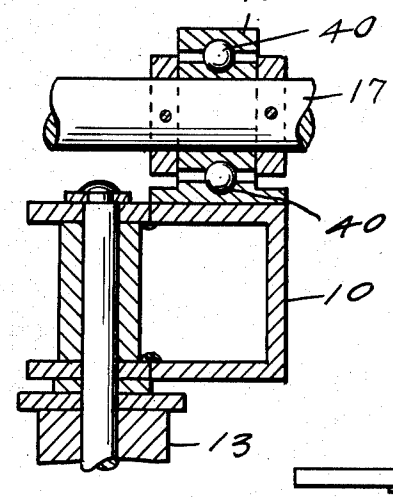
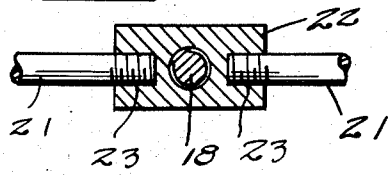


Fig. 1.

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Fig. 6.



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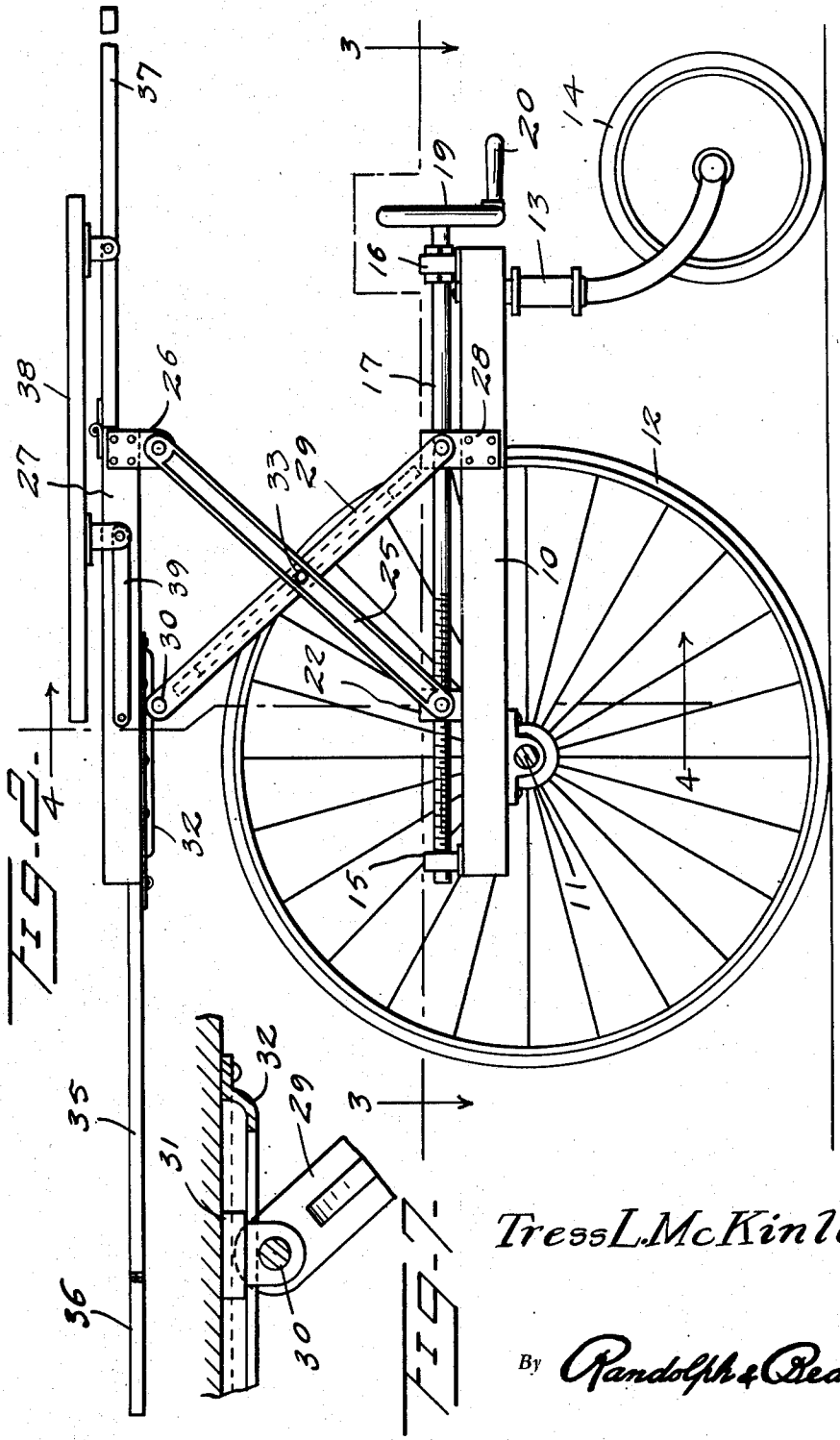


FIG. 2.

FIG. 1.

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FIG. 3.

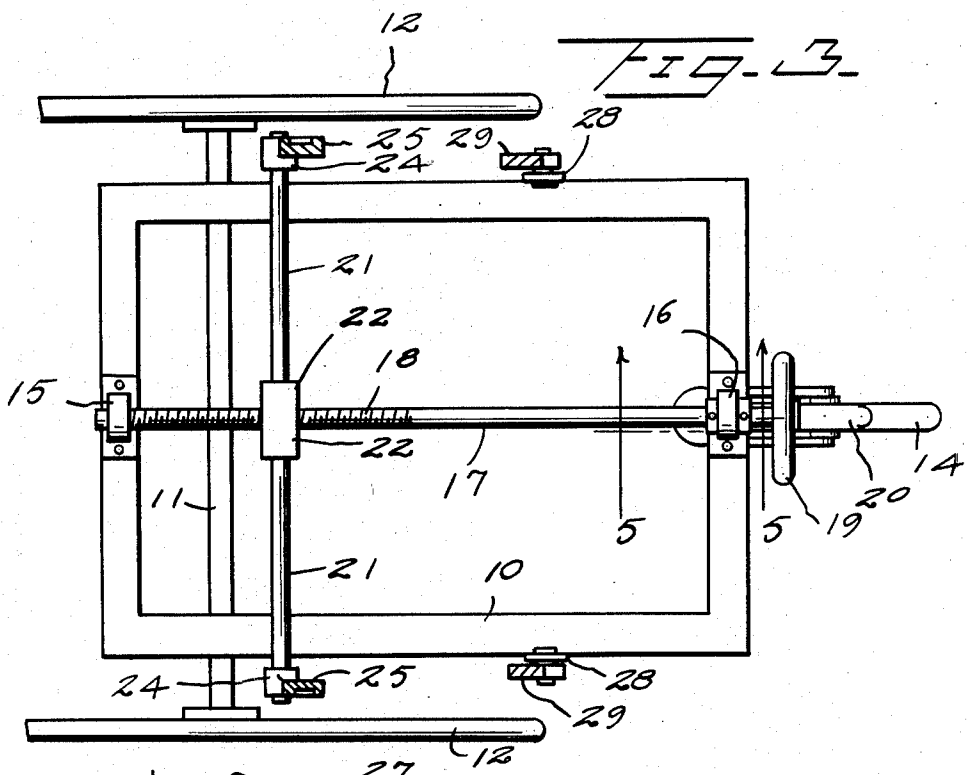
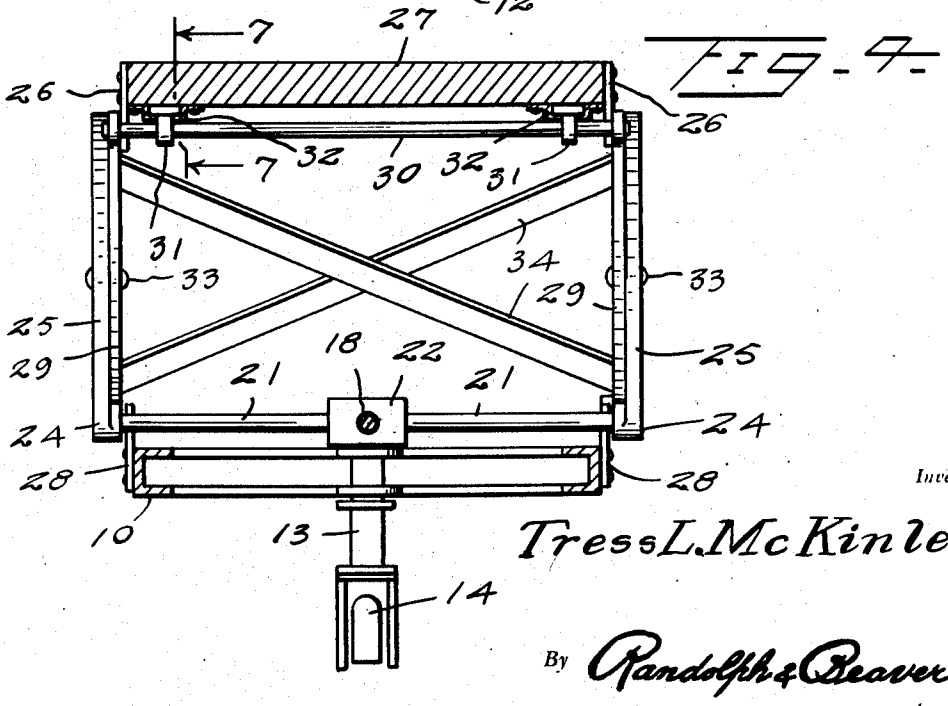


FIG. 4.



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UNITED STATES PATENT OFFICE

2,678,087

INVALID'S BED CHAIR

Tress L. McKinley, Temple, Tex.

Application September 12, 1947, Serial No. 773,620

1 Claim. (Cl. 155—91)

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The present invention relates to invalid's bed chair and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

It is an object of the present invention to provide an invalid bed chair which may be used as a conventional wheel chair and which may quickly and easily be converted into a bed or platform in order that a patient may be moved therefrom into a regular bed or from a bed into a chair with the least discomfort and danger to the patient.

Another object of the invention is the provision of simple and effective means for raising the seat of a chair of the character set forth.

A further object of the invention is the provision of a novel structure of the character set forth which is simple in construction and operation and yet which is efficient in its operation.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawings, in which:

Figure 1 is a side elevational view of an embodiment of the invention as used as a chair,

Figure 2 is a side elevational view thereof as used as a bed or platform,

Figure 3 is a sectional view taken along line 3—3 of Figure 2,

Figure 4 is a sectional view taken along line 4—4 of Figure 2,

Figure 5 is a sectional view taken along line 5—5 of Figure 3,

Figure 6 is a fragmentary sectional view illustrating certain details of construction, and

Figure 7 is an enlarged sectional view taken along line 7—7 of Figure 4.

Generally, there is provided a wheel chair having a mechanism manually operable by means of a handle disposed at the rear of the chair whereby the seat of the chair may be raised to a desired height, as, for example, the height of a conventional hospital bed, and in which the leg, foot, back and arm rests may be revolved to assume together a bed or platform.

Referring more particularly to the drawings, there is shown therein an invalid's bed chair comprising a substantially rectangular frame 10 to the underside of which is forwardly mounted an axle 11 at the ends of which are provided conventional wheels 12. At the rear end of the frame is swivelly mounted in a vertically dependent housing 13 a wheel 14.

Centrally disposed upon the upper forward end of the frame 10 is a bearing 15 and a like bearing 16 is centrally disposed upon the upper rearward end of the frame.

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A shaft 17, the forward portion of which is threaded as shown at 18, is revolubly mounted in the bearings 15 and 16 and extends rearwardly to a wheel 19 which is affixed thereto and is provided with a handle 20.

A pair of rods 21 extend transversely with respect to the frame 10 from a centrally disposed collar 22 to which they are threadably engaged, as shown at 23. The collar 22 is provided with a threaded opening and is threadably engaged upon the threaded portion 18 of the shaft 17.

The outer ends of the rods 21 are each provided with a lug 24 to which is pivotally connected the lower end of a jack arm 25 the upper end of which is pivotally connected to a dependent bracket 26 carried at the rear end of a seat 27.

The frame 10 is provided with an upwardly extending bracket 28 at either side thereof and immediately below the brackets 26 and to each of the brackets 28 is pivotally connected the lower end of an arm 29 and the upper ends of the arms 29 are interconnected by means of a rod 30 upon which is revolubly mounted a pair of lugs 31 each of which is slidably engaged in a longitudinally extending trackway 32 affixed to the bottom of the seat 27.

The arms 25 and 29 are in each case pivotally connected at their centers by means of a rivet 33 or the like and the arms 29 are interconnected by a pair of brace members 34.

The forward end of the seat 27 is provided with a hingedly connected board 35, to the lower end of which is hinged a foot rest 36. This board 35 and rest 36 can be moved from the position shown in Figure 1 to the horizontal position shown in Figure 2. To the rear end of the seat 27 is hingedly connected a back rest 37 at either side of which is pivotally mounted an arm rest 38 which is interconnected with the forward end of the seat 27 by a link 39. The leg and foot rests and the back rest may be adjusted to various positions by conventional means.

The bearings 15 and 16 are provided with ball races and ball bearings 40.

In operation, it will be apparent that by turning the wheel 19 by means of the handle 20, that the seat 27 may be raised and lowered with a minimum of effort on the part of the operator and that when the seat 27 has been raised to the level of a bed that the patient may be moved either to or from the chair, the foot, leg and back rests having first been moved to the positions

shown in Figure 2. The seat may be returned to its normal position by reversing the motion of a wheel 19 when it is desired to use the apparatus as a chair, the leg, foot and back rests being moved, of course, to proper positions

While but one form of the invention has been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claim.

What is claimed is:

An apparatus of the character described comprising an invalid chair, a frame forming a part of said chair, a seat for said chair, a pair of arms having their lower ends pivotally connected to the frame at either side thereof and having their upper ends slidably engaged upon the bottom of the seat, a second pair of arms each having its lower end pivotally connected to an inwardly extending bar and its upper end pivotally connected to the side of the seat, said pairs of arms being crossed and pivotally interconnecteed intermediate the ends thereof, a screw collar interconnecting the bars, a horizontal shaft threadably extending through said collar, bearings for the shaft carried by said frame at each end thereof and an operating handle affixed to one end of the shaft.

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