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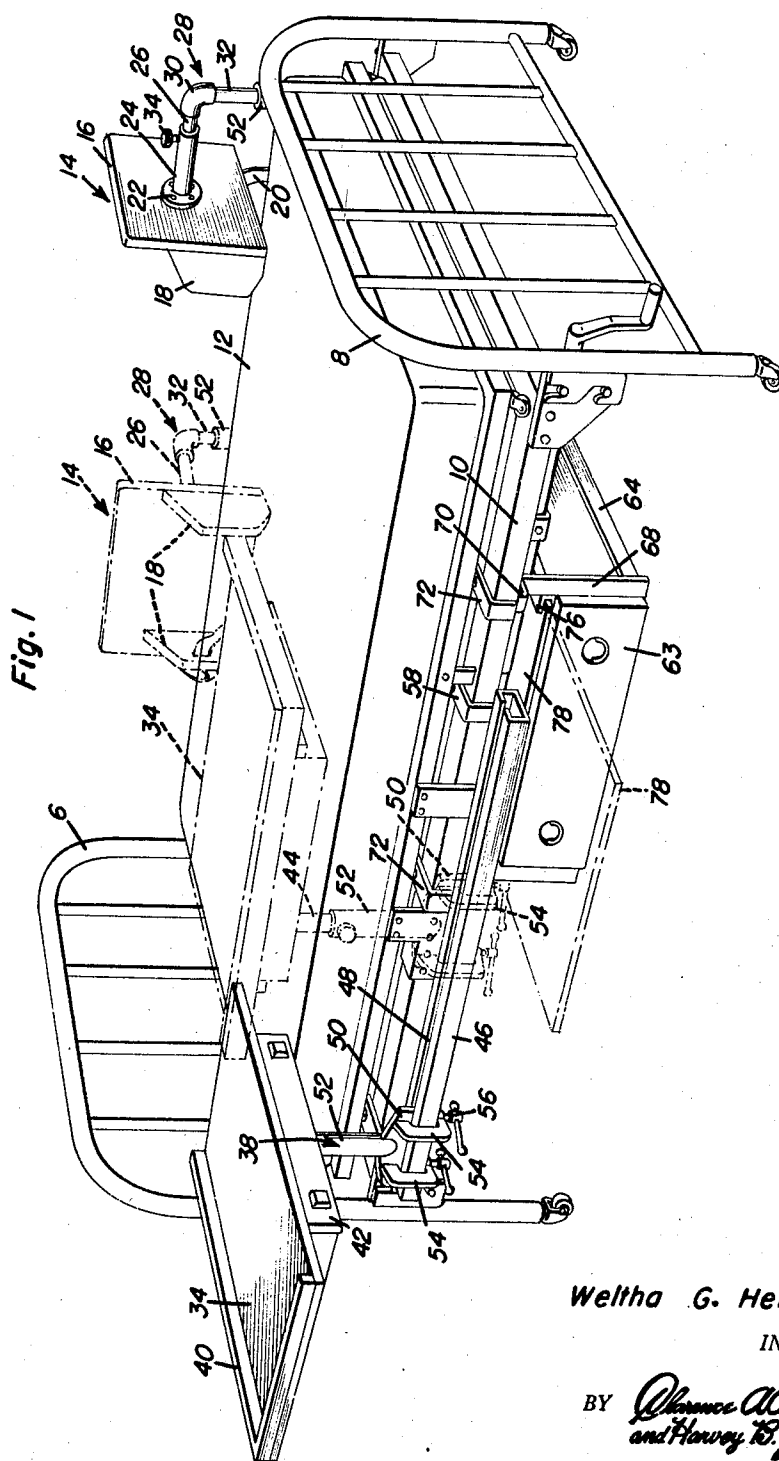
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HOSPITAL BED WITH MULTIPURPOSE EQUIPMENT

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3 Sheets-Sheet 1



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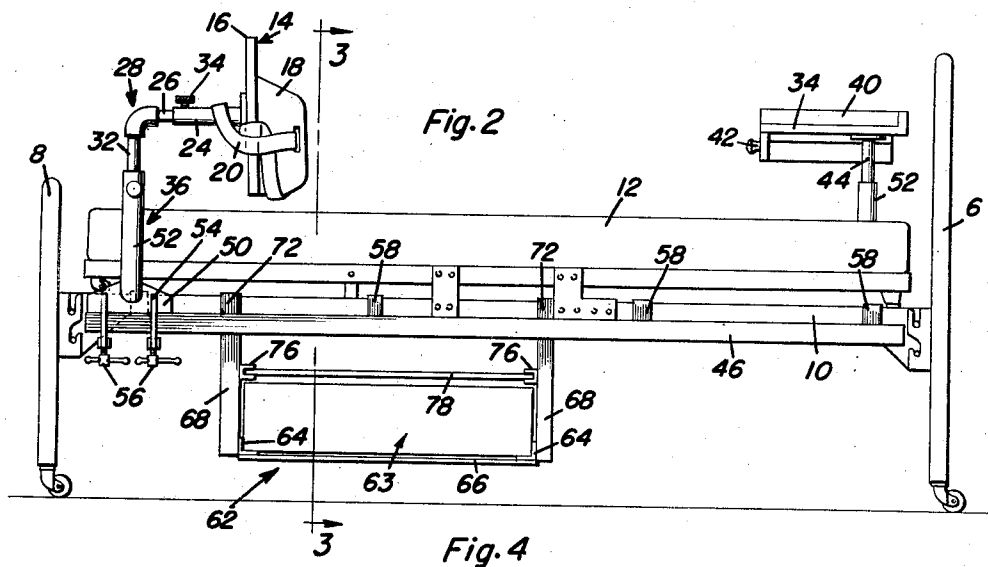
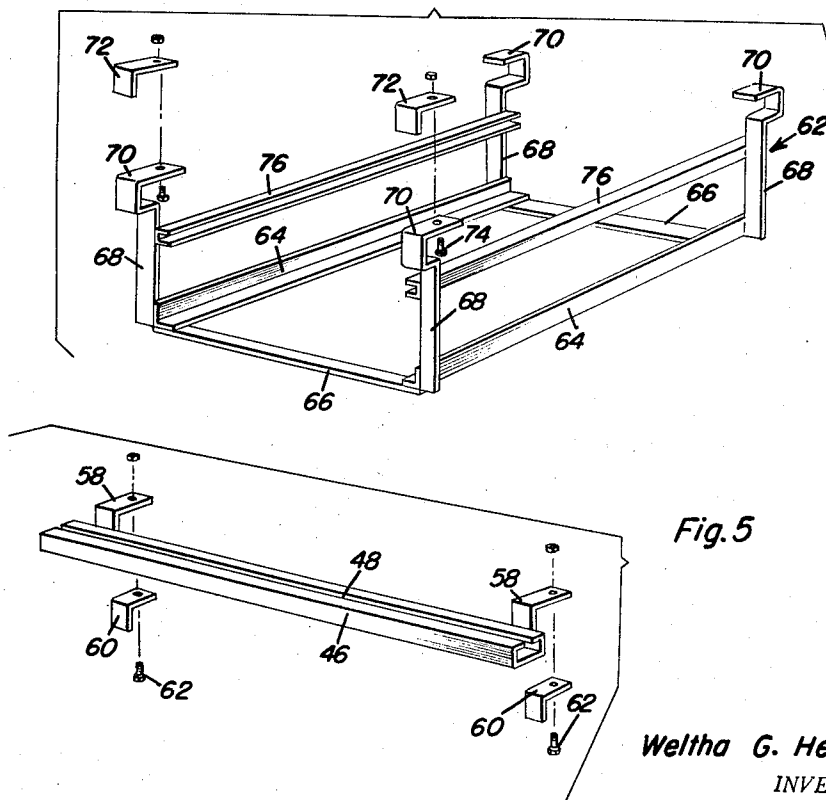
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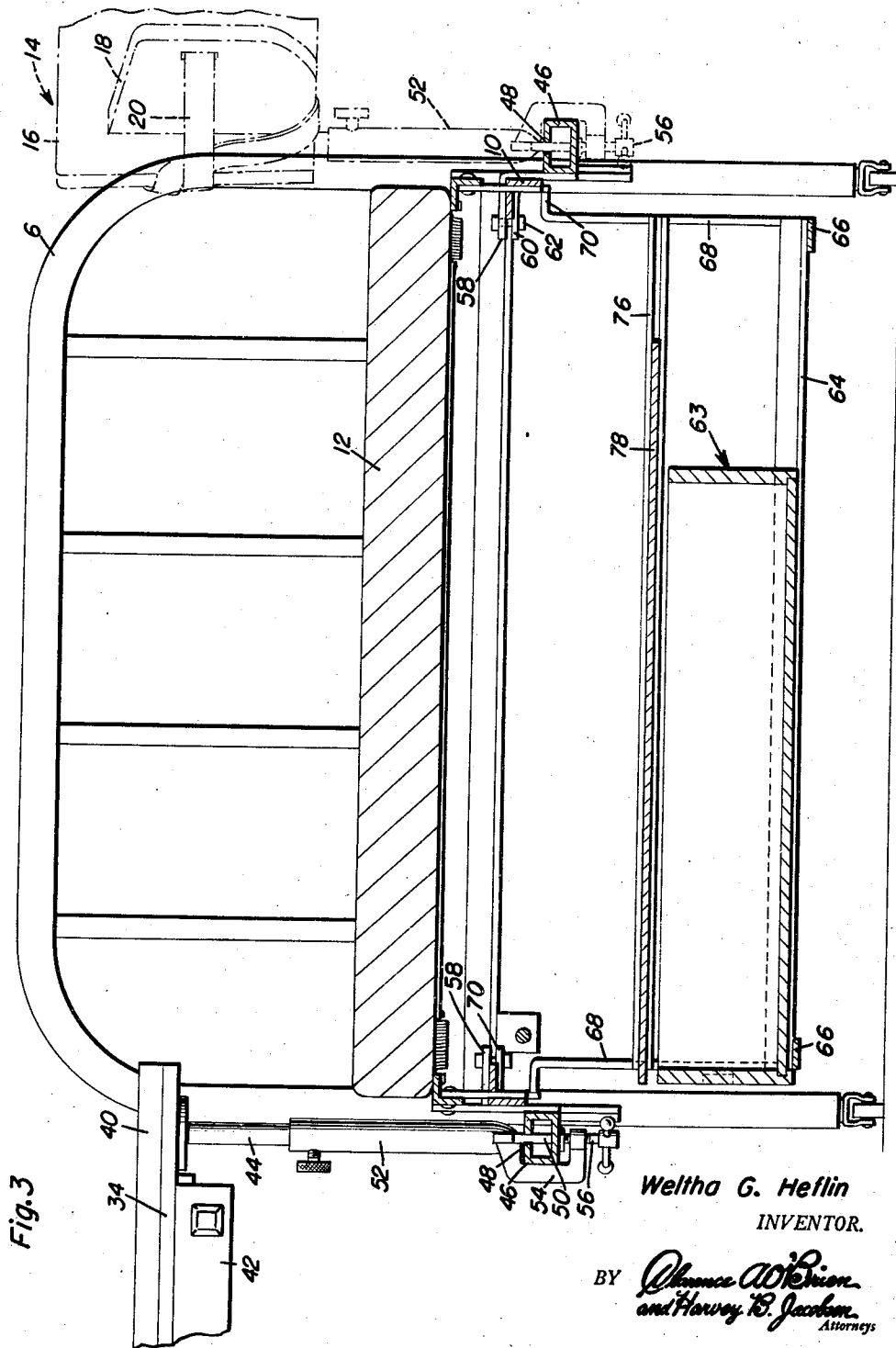
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HOSPITAL BED WITH MULTIPURPOSE EQUIPMENT

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6 Claims. (Cl. 5—317)

The present invention relates to a hospital or equivalent sick room bed, generally speaking, and has reference in particular to novel equipment which, when properly installed on the bed, may be effectually utilized to appreciably comfort and aid a bed patient or an invalid, as the case may be, and which, in addition, will promote convenience and save the time of nurses and other attendants.

It is a matter of common knowledge that various accessories, appliances, and attachments have been appropriated by others with a view toward rendering a hospital bed more useful and self-contained. The fact that such attachments as have been proffered appear not to have met with widespread adoption and use has worked as an incentive in the instant situation to better fulfill the comforting needs of patients and those who are called upon to attend and wait on the patients.

As will be more convincingly apparent, as the novel disclosure unfolds, there is herein revealed several, more or less, attachments which function singly and collectively to achieve the over-all results desired. Looking toward this accomplishment, it will be evident that the concept is directed toward simple, practical and efficient means which functions to enable the patient to rise from a reclining position and to assume a sitting position not only to promote body ventilation and blood circulation but to utilize change of position intervals and to promote recreation and an occasional feeling of well being so welcome to patients, nurses, doctors, and others.

Stated somewhat more explicitly, the invention has to do with a bed which is augmented, so to speak, by the utilization thereon of highly helpful facilities whereby the bed becomes a multipurpose structure. Briefly summarized, it is characterized by a conventional-type hospital bed embodying a frame structure including vertical head and foot sections connected by horizontal side rails, and a mattress supported atop said rails; a back rest disposed for use in a plane above the plane of said mattress whereby the mattress and back rest may be co-operatively arranged temporarily to provide the occupant of the bed with a bed-chair, means slidably and adjustably supporting said back rest by way of one of said side rails so that the back rest may be swung away from the mattress and shifted to an out-of-the-way position, say close to the bed's foot section; an extensible and retractable foot rest projectable to an in-use position relative to the other side rail, mattress and back rest; and means suspended beneath the bed frame and slidably supporting said foot rest so that the latter may be retracted to assume a wholly out-of-the-way position beneath the bed when it is not in use.

Further novelty is predicated upon the special adaptations above set forth and in combination therewith of a horizontal table disposed in a plane above the plane of said mattress and adapted to occupy a position lined up with said back rest and to cooperate with the back, and means adjustably and slidably mounting said table on the second-named side rail, said means making it possible

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to shift the table to any desired position along the bed so that it may be used for whatever purposes desired.

Specifically and viewed from the so-called attachment angle, the concept pertains to an attachment for a side rail comprising an elongated track, adapter brackets for mounting said track alongside of and parallel to said rail, a vertical tubular standard having means at its lower end whereby it may be clampingly and slidably mounted for operation on said track, said standard functioning as a support and also a socket member, a leg fitting removably, rotatably and adjustably in said socket member, and means atop said leg to serve the temporary sitting-up needs of a bed patient.

Furthermore, novelty is predicated on the idea of having channel-like tracks bracketed to the opposite side rails of a bed, each track being provided with an upstanding member or standard which is tubular, the tubular member forms a socket and the socket serves to accommodate either the support means of a back rest or, alternatively, the support means of a novel table or desk, as the case may be. The standards are provided at their lower ends with flange-like plates, and the plates have clamping means and they are adapted to slide back and forth by way of accommodation slots in the tracks with which they cooperate.

Other objects, features, and advantages will become more readily apparent from the following description and the accompanying drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

Fig. 1 is a perspective view of a conventional-type hospital bed equipped with the added attachments or facilities by way of which the objectives set forth are capable of accomplishment.

Fig. 2 is a side elevation on a slightly smaller scale of the construction seen in Fig. 1 but looking at the remote side of the bed.

Fig. 3 is an enlarged cross-section on the vertical line 3—3 of Fig. 2, looking in the direction of the arrows.

Fig. 4 is an exploded perspective view of the rack which is attached to the underneath side of the bed frame and which serves as support means for the sliding utility drawer.

Fig. 5 is a perspective view of one of the attachment rails or tracks.

It is evident from Fig. 1 that the bed may be of any suitable construction but in keeping with the nature of the concept under advisement, it is a conventional type hospital bed having vertical head and foot sections 6 and 8, respectively, connected together by customary longitudinal side rails 10. The usual bed spring is mounted atop the rails and supports the mattress 12.

In this connection, the mattress functions as the "seat" for the patient. What is referred to as a "bed chair" comprises the mattress and the attending back rest 14 which comprises a vertical panel 16 with lateral confining wings 18 equipped, where necessary or desired, with harnessing straps 20. Attached by a socket member 22 to the back of the panel is a sleeve 24 which is slidably and rotatably as well as detachably mounted on the horizontal arm 26 of the L-shaped support means 28. This means includes a coupling 30 between the horizontal arm or leg 26 and the vertical companion leg 32. The adjustment is maintained by a setscrew 34. The means whereby this back rest is slidably and adaptably mounted on the side rail of the bed is the same as the means which serves to similarly support the multi-purpose table 34 which is on the opposite side of the bed. It is believed, therefore, that the means on one side may be referred to broadly by the numeral 36 and the similar means on the other side by the numeral 38. These devices will be described in detail, using the same refer-

ence numerals inasmuch as they are the same in construction. First, however, the table comprises a suitable panel with a removable article-confining rail or what is sometimes referred to as a ledge 40. The table also includes a suitable sliding drawer 42 for small articles. The leg which is used to swivelly and otherwise mount and support the table is denoted (Fig. 2) by the numeral 44.

Each device 36 or 38 as the case may be is supported from the side rail of the bed by a horizontal track. The track in each instance is denoted by the numeral 46 (Fig. 5). It is of tubular or channel-shape form and is open ended and the top is provided with a narrow slot 48 which provides a keyway for a flange 50 on the lower end of the tubular standard 52. The flange is a sort of a shoe and is slidably keyed in the track by way of the guide and retention slot 48. C-clamps 54 provided with setscrews 56 serve to position and hold the standard 52 in the desired manner. The standard is open at its top and provides a socket member for interchangeable reception of the legs 32 and 44. This means that the back rest or table may be slidably mounted on either side of the bed. The track is provided with two or more angle brackets 58 and accompanying angle clips 60 and suitable fasteners 62 whereby the track is adaptably mounted in parallelism on the outer side of the side rail 10 in the manner seen in Fig. 1.

Attention is directed now to Fig. 4 which shows a framework which may be here referred to as a rack 62, said rack serving as a mounting for the slidably mounted drawer 64. This drawer serves as a handy and convenient place for a bedpan, rubbing alcohol and miscellaneous similar articles which are necessarily used from time to time in a sickroom. The table drawer 42 may also be used to contain miscellaneous small items. The rack comprises a pair of spaced parallel angle irons 64 and transverse connecting bars 66 at the front and rear ends and corner uprights 68 at all four corners having suitable U-shaped attaching members 70 on their upper ends which are suspended from the bed rails partly assisted by the L-shaped clips 72 and bolts or equivalent fasteners 74. These members, that is, 64 and 66, provide a satisfactory hanger for the larger drawer 63. Attention is also directed to a pair of spaced parallel channel irons 76 which are included in the rack and face each other and provide tracks for a flat insertable and removable plate 78 which, when extended to the dotted line position seen in Fig. 1, provides a foot rest; in fact, in Fig. 1, the observer will see how the various attachments are shifted from their full line out-of-the-way positions to their cooperating in-use position. That is to say, the back rest at the right in Fig. 1 is shown over the bed opposite the extended foot rest. The table has been moved into position so that the patient may use it for eating, reading, writing or miscellaneous purposes.

Briefly reviewed, it will be seen that the invention in its preferred embodiment is characterized as follows:

First, a rectangular track for either or both sides of the bed, hangers and brackets.

Second, the bed chair back rest which is supported by an upright standard which moves back and forth horizontally in its track which is attached to the bed rail.

Third, the bed table which is supported by an upright standard which moves horizontally back and forth in its own track alongside the bed rail.

Fourth, the bed drawer which fits under the bed, being held in place by a metal framework and hangers and brackets. In this framework just above the drawer are slides or rails for the foot rest to slide in and out of.

The "bed chair" serves to benefit the invalid or patient who has need to sit upright in bed, whereby the comforts of changing positions in bed may be enjoyed by sitting upright as would be done in a regular chair. Furthermore, by sitting in an upright position the patient

will receive the benefit of air circulation around the hips, back and other parts of the body which otherwise would be deprived of this much-needed air circulation which, through its drying and toughening process, will tend to keep bed sores from forming. Then, too, it allows the patient benefit by eating meals in a regular upright position. By eating meals in an upright position such as this affords, the benefit of air circulation around the body is had at least three times daily.

In pointing out the features of my bed table, attention is directed to the removable ledge which keeps objects sitting on the table from being pushed off. Being a removable ledge, the table may be kept clean for sanitation reasons. This table is easily movable along its track to a position completely out of the way of administering to the patient. Being used as a bed side table, it remains at the head of the bed where it is out of the way, and, used as an eating table, it is easily movable to the desired position. The table has an ordinary sliding drawer capable of holding a small basin and personal things belonging to the patient.

The foot rest is not a step for the purpose of getting in and out of bed, but is for the purpose of resting the feet on while using the bed chair for eating or any other purpose, just sitting up, etc.

The bed drawer 63 which is a part of this combination is most convenient for storage of the bed pan, rubbing alcohol, bed clothing, etc. The framework which houses both the drawer and the foot rest helps to add rigidity to the bed rails.

The bed chair and the bed table are so constructed as to operate along a horizontal track running parallel with and attached to the angle iron bed rail of the bed. Therefore, a specially designed track is attached to the bed rail on either or both sides of the bed for the purpose of accommodating the said bed chair and bed table, the bed chair operating on one side of the bed on its own track and the bed table operating on the opposite side of the bed on its own track. The bed chair and the bed table may be operated on either side of the bed as the upright standard which holds the bed chair in place will work equally as well in the socket which holds the upright standard of the bed table and vice versa.

The bed drawer is attached to the bed by a specially designed framework complete with hangers and brackets and slide runs for both the drawer and foot rest.

The track is of rectangular design and may extend the full length of the bed, or any part thereof. The socket which forms a part of the upright standard for supporting the bed chair and/or the bed table is attached to a foot, or a base, which slides or rolls along inside the rectangular track.

The upright standards which support the bed chair and the bed table are formed by using a male and female coupling, one pipe fitting inside the other. In this manner, both the chair and the table are adjustable up and down to fit the patient, and by the same token the chair is adjustable backward and forward. Both the chair and table will make a complete pivot and lock in place at desired position.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. For use in a hospital, sick room or elsewhere, a conventional-type hospital bed having a frame structure including vertical head and foot sections connected by horizontal side rails and a mattress supported atop said side rails, a vertically disposed standard, a bed chair embodying a back rest which adapted to be positioned over

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the mattress when in use and is adapted to be swung away from the mattress and to an out-of-the-way position when it is not in use, means for detachably and adjustably mounting said standard on one of said side rails, said standard comprising a tubular member open at its upper end and providing a socket, a sleeve fixedly secured to one vertical side of the back rest and adapted to occupy a horizontal position, an L-shaped member having a horizontal arm fitting removably and adjustably in said sleeve and having a vertical leg fitting removably and adjustably in the socket provided at the upper end of said standard whereby to permit the standard to be shifted to and supported in any desired position relative to the side rail and mattress and permitting the back rest to be swung over the mattress and raised or lowered to assume a position comfortable to the patient.

2. The structure defined in claim 1 and, in combination, a second vertical standard identical with the first named standard and likewise having means for detachably and adjustably mounting the lower end of the standard on the other side rail of the bed, the upper end of said standard being tubular and open and providing a second socket, said socket adapted to accommodate the aforementioned leg and making it possible to shift the bed chair from one side of the bed to the other so that it will thus be in a position most practical for the patient, the nurse, doctors and other attendants.

3. An attachment for one of the side rails on a hospital bed comprising a horizontally elongated track, adapter brackets fixedly joined to said track whereby the track may be attached to and suspended outwardly of and alongside said side rail, a tubular standard the upper end of which provides a socket and which is adapted to extend to a position well above the plane of said side rail, manually regulatable and adjustable mechanical means removably and adjustably connecting the lower end of the standard to said track, the upper end of said standard providing a socket member, and patient accommodating means which may be readily moved toward and from the patient relative to the side rail and mattress of a bed, said means having a vertical leg fitting removably and telescopically into the socket member and said socket member being provided with a setscrew whereby said leg may be positioned and held as desired.

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4. The structure defined in claim 3 and wherein the stated means comprises a bed chair having a back rest.

5. An attachment for one of the horizontal side rails of a hospital bed comprising a horizontally elongated rigid track, said track being tubular in cross-section and open at its opposite ends and being provided along its top with a restricted longitudinally extending slot which also opens through the open ends and which provides a keyway, brackets carried by said track whereby it may be detachably mounted on the side rail of a bed, a linearly straight tubular standard, said standard being provided at its lower end with an integral foot-like flange, said flange providing a key and being slidably keyed in said keyway, said flange being provided with laterally projecting clamps offset in respect to one side of the flange and adapted to embrace a portion of the track and having clamping screws adjustably connectible with the track, and means removably and adjustably mounted atop the upper end portion of said standard, said upper end portion of said standard being hollow and providing a socket member, said means having a leg and said leg depending telescopically into the socket member.

6. The structure defined in claim 5 and wherein said means comprises a bed chair having a vertical back rest, said back rest being provided on a rear side thereof with a fixedly attached outstanding sleeve, an arm fitting removably and telescopically into said sleeve, said arm being disposed in a horizontal plane and connected to said leg and being disposed at right angles to the leg.

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