April 26, 1938. U. LOBB 2,115,111

BED CONSTRUCTION

Filed July 10, 1936

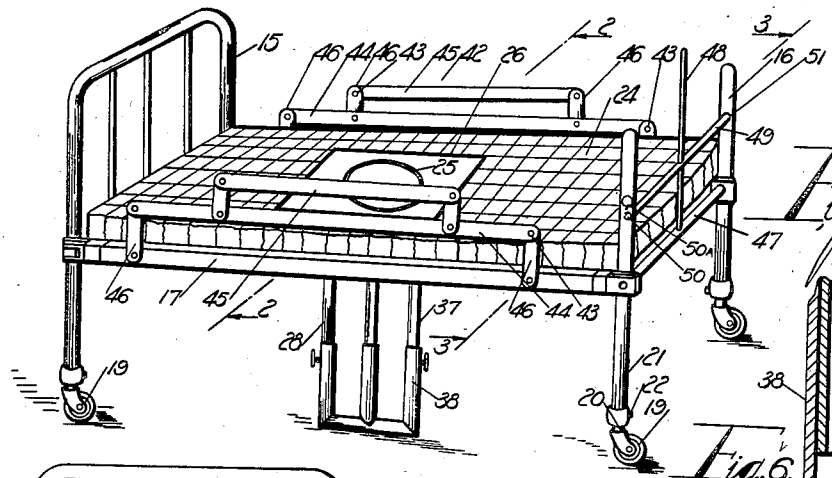


Fig. 1.

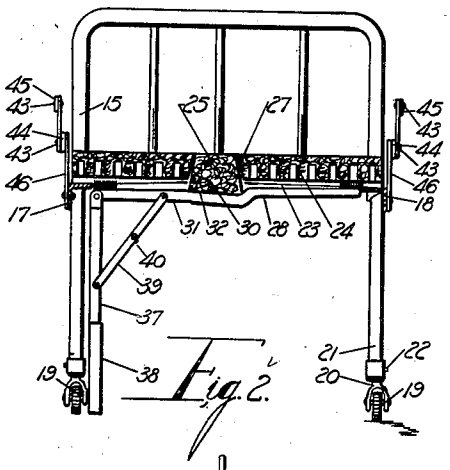


Fig. 2.

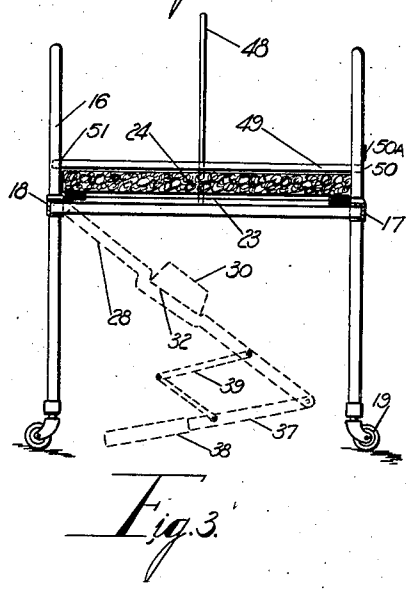


Fig. 3.

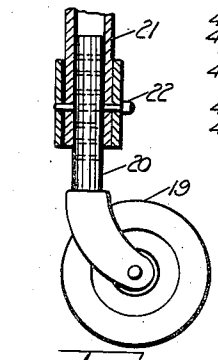


Fig. 4.

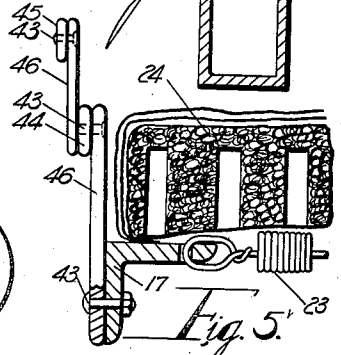


Fig. 5.

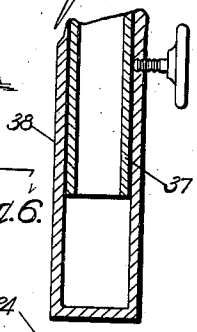


Fig. 6.

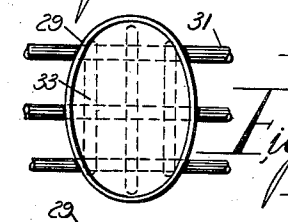


Fig. 7.

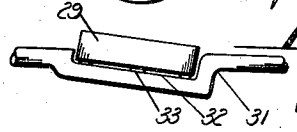


Fig. 8.

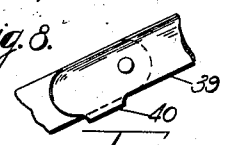


Fig. 9.



Fig. 10.

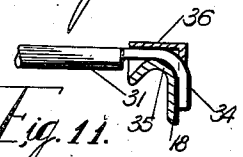


Fig. 11.

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Patented Apr. 26, 1938 2,115,111

UNITED STATES PATENT OFFICE

2,115,111

BED CONSTRUCTION

Una Lobb, Grafton, Ontario, Canada

Application July 10, 1936, Serial No. 89,867
In Canada November 22, 1935

2 Claims. (Cl. 5—90)

The invention relates to a bed construction, as described in the present specification and illustrated in the accompanying drawing which forms a part of the same.

The invention consists essentially of the novel features of construction pointed out broadly and specifically in the claims for novelty following a description in detail of an acceptable form of the invention.

The objects of the invention are to alleviate the discomforts of bed-ridden patients through the provision of a pan for excretion purposes within the bed which may be in constant readiness for use without disturbing the patient or the disarrangement of the bed itself; to devise a bed for home or hospital use which will contain the necessary acquisition for handling patients suffering from strokes, fractures, or other ailments which permanently or temporarily incapacitate them from taking care of themselves and enabling a nurse or other attendant to take care of them with comparative ease especially in the case of corpulent patients or those suffering from serious injuries; to furnish a bed with the conveniences for sick persons and enable them to have the rest and ease required and minimizing bed-sores and eliminating unsanitary conditions and thereby materially assist in the recovery of the patient; to construct a bed that may be quickly converted from an ordinary bed to a hospital bed and consequently increase its usefulness especially when used in private homes; and generally to provide to patients and others a bed that will be durable in construction, of great comfort and efficient for its many purposes.

In the drawing:

Figure 1 is a perspective view of the bed structure.

Figure 2 is a cross sectional view of the bed structure taken on the lines 2—2 in Figure 1.

Figure 3 is a cross sectional view of the bed structure taken on the lines 3—3 in Figure 1.

Figure 4 is an enlarged fragmentary view partly in section showing one of the casters and the adjustment.

Figure 5 is an enlarged fragmentary side view disclosing the collapsible bed rails as fastened to the bed structure.

Figure 6 is an enlarged fragmentary sectional view of one of the extension legs forming the support for the excretion receptacle.

Figure 7 is an enlarged plan view of the excretion receptacle as inserted in the seat formed in the stand.

Figure 8 is a fragmentary side view of the excretion receptacle as shown in Figure 7.

Figure 9 is an enlarged detail of the locking member for the stand.

Figure 10 is a fragmentary sectional view of the mattress showing the orifice therethrough.

Figure 11 is an enlarged detail showing the method of supporting the hinged end of the stand.

Like numerals of reference indicate corresponding parts in the various figures.

Referring to the drawing, the bed structure consists of the head frame 15 and the foot frame 16 joined together by the angle bars 17 and 18 and mounted on the casters 19, each of the latter having a member 20 adapted to fit in the tubular legs 21 of the frames and in this way, the bed structure may be raised or lowered from the floor through adjusting the height of the caster member within the legs, the means for adjusting may of course be varied according to the requirements, but as herein shown, the caster member is provided with a plurality of apertures through which a pin 22 may be inserted and extend through the leg 21.

This is a great convenience when it is required to insert anything beneath the bed, such as in operations when it is desired not to move the patient, by simply raising the bed structure, the operating table may be slid beneath the spring and mattress, and of course the adjustments may be used for other purposes.

The bed spring 23 may be formed in any convenient manner according to the requirements, but is provided with an aperture adapted to correspond with an aperture in the mattress 24, the mattress 24 being preferably of the rubber type although it is of course understood that other forms of mattress could be used.

The aperture or orifice 25 in the mattress is preferably oblong in shape, and is lined with a rubber sheet 26, the walls of the orifice being preferably on a slant as indicated by the numeral 27, the purpose for which will be hereinafter more particularly described.

The stand 28 for supporting the excretion receptacle 29 or the cushion plug 30 as the case may be, is formed of a plurality of horizontal members 31, and these members may be in the form of bars but are so constructed as to provide a central recess forming the seat 32 on which the receptacle 29 or the cushion plug 30 is inserted, the recess being strengthened by the cross pieces 33.

One end of the horizontal members of the stand

28 terminates in the hooks 34 which are adapted to rest on the top of the angle bar 18 flush therewith and curve down over the side thereof, the angle bars being suitably indented to a radius 35. In order to prevent the hooked ends 34 from slipping out of position, from within the indentations, suitable stops 36 are provided at the sides of the hooked portions 34.

The horizontal members 31 and the vertical members 37 are connected together by means of collapsible braces 39, these braces being formed with two pivoted sections, one of the sections having a stop 40 for holding the sections in their operative position. The socket member 38 forms the foot member for the stand and is adjustably mounted to the vertical members 37.

It will be seen that when it is desired to use the pan, all that is necessary is to break the joints of the collapsible braces 39 and then press the socket member inwardly which has the effect of collapsing the stand. When this is accomplished, all that is necessary to be done is for the attendant or other person to remove the cushion plug from the seat and thereinplace substitute the pan, and by simply pulling the socket member outwardly, the stand becomes rigid and vice versa.

It will be noted that the cushion plug is preferably made of the same material as the mattress and is shaped to conform with the slanting walls in the orifice of the mattress and in that way there is no danger whatsoever of the plug jamming in the orifice.

It is of course understood that changes in structure with regards to the stand may be made without departing from the essential features of combining the cushion plug and the excretion receptacle.

Incidentally, the receptacle and the cushion plug are prevented from slipping out of position owing to the particular formation of the seat in the stand, although in certain cases it may be required to have a receptacle frame and a cushion frame, but in most cases this is not necessary.

In order to insure that the patient will not roll off the bed, as well as to insure that the linen thereon will be kept in place, bed rails such as 42 are provided and each of the bed rails is formed of a sheet rail 44 and the guard rail 45 and are connected together by the links 46 and the guard rails are connected to the angle bars 17 and 18 by means of the locks 43; and these links 43 and 46 are for the purpose of collapsing the bed rails when not in use, so that in their collapsed form they will come into alignment with the angle bars and are practically out of sight.

The foot frame 16 is provided with the tubular transverse cross brace 47 having an opening, and is adapted to contain the removable tubular foot rail 49 and the tubular upright 48 when not in use, the tubular members being of varying diameters and adapted to fit one into the other for storage purposes. The tubular upright 48 is held in position by means of the foot rail 49 and the cross brace 47, the upright 48 passing through a through-passage in the foot rail 49 and having its end extending into the foot brace 47. The through-passage 50 through which the foot rail 49 is inserted and entered into the orifice 51 in the opposite bed post, has the cover plate 50a which is suitably hinged to the bed post 21 and this cover plate is adapted to not only prevent the foot rail from working out of position when assembled, but produces a more finished appearance to the foot of the bed when the removable members are removed.

The upright 48 is for the purpose of providing comfort to patients not desiring the sheets, etc. to rest on their feet as in the case of fractures, the sheet can be placed over the upright. With this construction, the foot of the bed is entirely clear of obstructions when the foot rail and upright are removed and hence the patients are assured of the utmost comfort.

In the various details of this bed structure, it will be noted that the simplicity of the various parts is one of the essential features, in that they can be easily collapsed and removed from view so that the bed could be used for ordinary purposes in homes and other places, but when the occasion arises where it is found necessary to make it a patient's bed, the parts could be quickly and easily brought into use and thereby materially increase the services of such a bed.

What I claim is:

1. In a bed structure, a head frame and a foot frame, angle bars connecting the frames together, a spring and a mattress mounted on said angle bars and having an excretion orifice, a stand formed of horizontal and vertical members pivoted together at one end and, the former being pivotally supported at their other ends on one of said angle bars, a socket member forming the foot rest for the stand and adjustably mounted on the vertical members, and collapsible braces connected between the vertical and horizontal members for holding said members at a right angle, a seat formed in said stand in alignment with the orifice and the mattress, said seat adapted to receive selectively a pan adapted to be positioned beneath said orifice or a plug of mattress material adapted to fill said orifice.

2. In a bed structure, a head frame and a foot frame, angle bars connecting the frames together, a spring and a mattress mounted on said angle bars and having an excretion orifice, a stand formed of horizontal and vertical members pivoted together at one end, said horizontal members being depressed centrally to form an oblong seat and reinforced by cross pieces and pivotally supported at their outer ends on one of said angle bars, a socket member forming the foot rest for the stand and adjustably mounted on the vertical members, and collapsible braces connected between the vertical and horizontal members for holding said members at a right angle, a seat formed in said stand in alignment with the orifice and the mattress, said seat adapted to receive selectively a pan adapted to be positioned beneath said orifice or a plug of mattress material adapted to fill said orifice.

UNA LOBB.