Sept. 24, 1957 J. J. TUNNEY 2,807,032

ATTACHMENT FOR BEDS, PARTICULARLY HOSPITAL BEDS

Filed Nov. 10, 1954 2 Sheets-Sheet 1

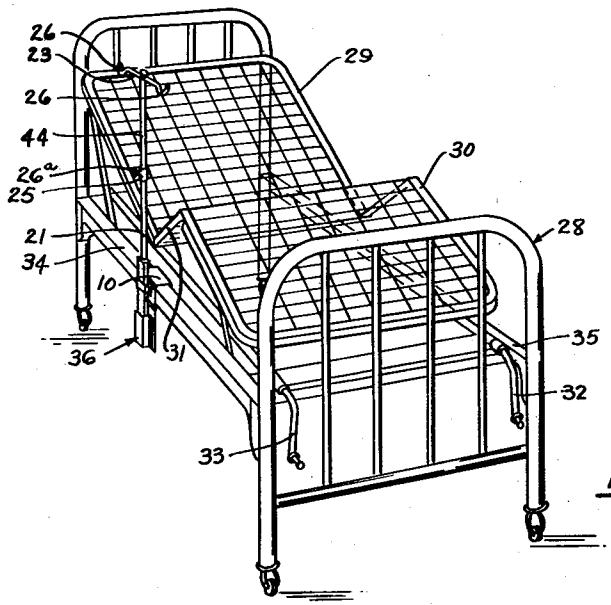


FIG. 1

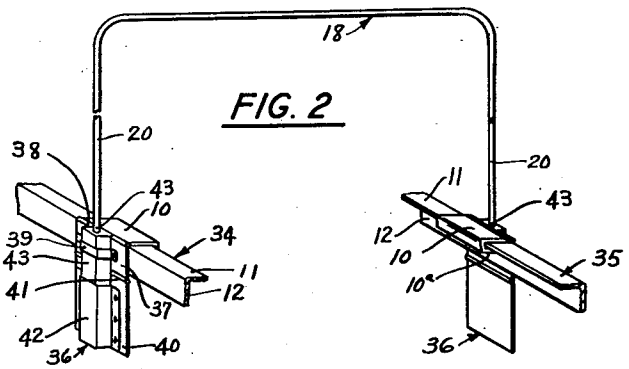


FIG. 2

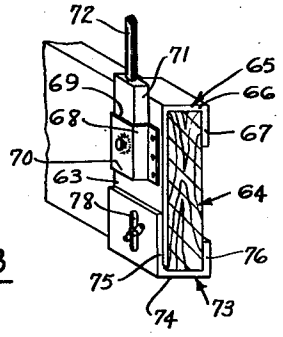


FIG. 8

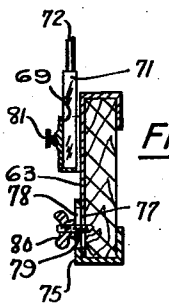


FIG. 9

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ATTACHMENT FOR BEDS, PARTICULARLY HOSPITAL BEDS

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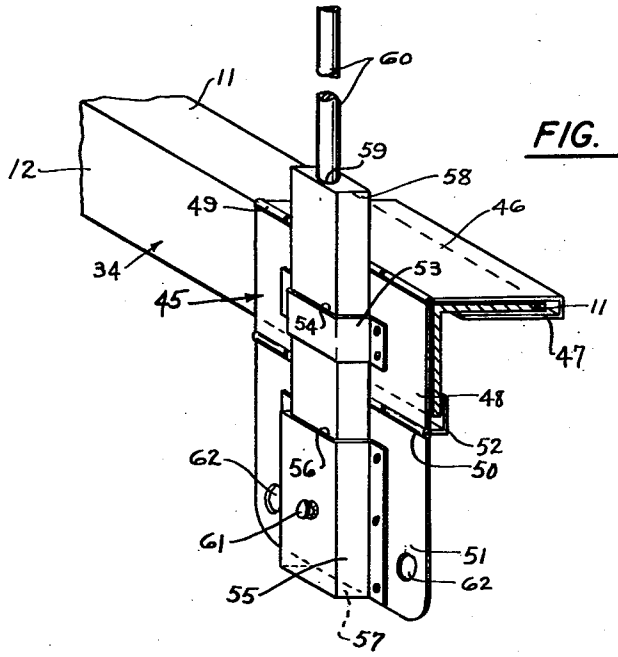


FIG. 3

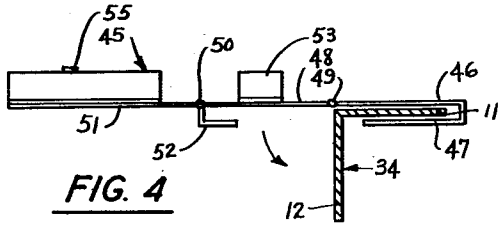


FIG. 4

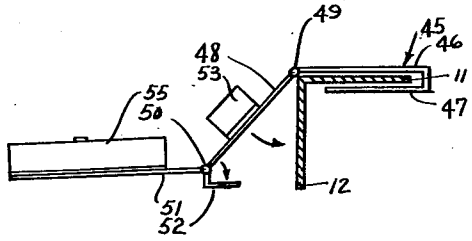


FIG. 5

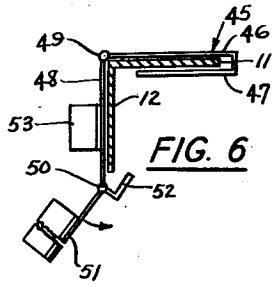


FIG. 6

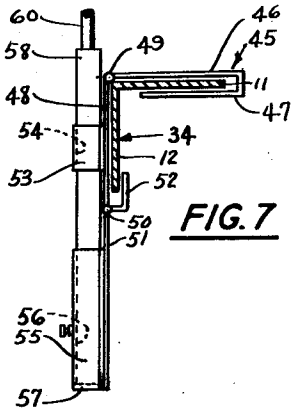


FIG. 7

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ATTACHMENT FOR BEDS, PARTICULARLY HOSPITAL BEDS

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Application November 10, 1954, Serial No. 468,051

5 Claims. (Cl. 5—317)

This invention relates to improvements in attachments for beds and has for an object the provision of a device which hooks over and spans the upper surface of the angle iron side of an iron bed and having a depending portion into which means for elevating a device at least above the level of a mattress on said bed.

Another object of the invention is the provision of an attachment for a bed comprising a hinged element which may be fixedly mounted on the angle iron side of a bed without the necessity of physically securing it to the bed, and socket means on said device to accommodate different attachments particularly for hospital use.

A further object of the invention is the provision of a device for attachment to the side rails of a wooden bed and carrying means to support articles and the like on levels at least as high as the upper surface of a mattress on said bed.

Another object of the invention is the provision of an attachment of the angle iron side rails of a bed comprised of a double hinged member having three generally rectangular plate portions, one of which is adapted to be horizontally disposed on said side rail and having an extension which underlies the upper portion of said side rail and having a second flat portion which members up with an outer face of the vertical portion of said side rail and which has a portion underlying the bottom edge of said side rail, the third portion of said member and the second portion having aligned sockets to receive a bar or rod member which, in addition to performing a predetermined function also locks the hinged member onto said side rail without the use of extra screws or attachments.

Other objects and advantages of the invention will be apparent to those skilled in the art upon a study of this specification and the accompanying drawings.

Figure 1 is a view of a hospital bed showing one of my improved attachments mounted thereon;

Figure 2 is a fragmentary view showing a pair of spaced bed side rails each of which carries one of my improved attachments and conjointly they support a generally U-shaped rod member;

Figure 3 is a perspective view of the side rail of a metal bed showing a modified form of my new and improved attachment which employs no means of locking it onto the side rail of the bed other than socket means which accommodates a vertical rod or bar for supporting various devices for use with the sick;

Figure 4 shows the attachment of Figure 3 and the first step of applying it to the angle iron side rail of a bed;

Figure 5 is similar to Figure 4 except that the second step of applying the attachment to the side rail of a bed is depicted;

Figure 6 is a view similar to Figures 4 and 5 wherein the last step of applying the attachment to the side rail is depicted;

Figure 7 is a cross-sectional elevation wherein a vertical rod or bar has been inserted in the aligned sockets for retaining the attachment onto the side rail of the bed;

Figure 8 is a perspective elevation partly in section showing a further modification of my attachment as applied to a side rail of a wooden bed; and

Figure 9 is a side elevation partly in section of the device shown in Figure 8.

Referring to Figures 1 and 2, a hospital bed **28** has spring portions **29, 30, 31**, adjustable, for example, by means of cranks **32, 33** or any other suitable means. The bed **28** has side rails **34, 35** which are common angle irons and which are L-shaped in cross-section in the form of an inverted L.

My new and improved attachment element **36**, as may best be seen in Figure 2, is comprised of a portion **10** which is horizontal when in use and which hooks over and has a portion **10***a* underlying the horizontal portion **11** of the angle iron **34**. The attachment element **36** has a normally vertical portion **37** which is linked to the portion **10** by means of a hinge **38** common to both the portions **10** and **37**. The portion **37** carries a strap member **39** which has a generally rectangular opening therein. A second portion **40** depends from the portion **37** and is connected to the latter by means of a hinge **41**. Secured onto the portion **40** is a strap member **42** which defines a socket of rectangular cross section so that when the attachment element **36** is applied to the angle iron side **34** of the bed, a rectangular bar portion **43** may pass through **39** and into the socket **42** and thereby hold the member **40** against movement about the axis of the hinge **41**. The bar **43** may have a drilled hole (not shown) formed therein to comprise a socket adapted to receive a rod **21** as may best be seen in Figure 1. The rod **21** may comprise a tube having a thickened portion **25** which carries a set screw or thumb screw **26***a*. Telescoped into the tube **21** is a tube or rod **44** which carries on the upper end thereof a cross arm **23** with hooks on the extremities thereof such as the hooks **26, 26**, upon which implements used in giving blood plasma, enemas, etc. may be mounted and the thumb screw **26***a* enables a nurse to raise or lower the cross arm **23** by extending or contracting the telescoping elements **4** and **21**.

In the modification shown in Figure 2, one attachment element **36** is shown on the right hand side of the bed so the description of it need not be here repeated. A like attachment element **36** is supported on the opposite angle iron **35** and the parts thereof are given the same numerals as those shown on the right hand side. The rectangular bar **43**, when placed in the strap **39** and the socket **42**, locks the element **36** against movement and the bar **43** may have a hole or socket therein which will accommodate the ends **20, 20**, of a generally U-shaped supporting member **18**. When the member **18** has its ends **20, 20**, inserted in the holes **43***a* of the bars **43**, the member **18** may be used to hold the covering or any other necessary thing above and out of contact with the body of a patient lying on the bed, and due to the hook-over effect of **10***a* and the locking effect when the bar **43** is inserted in the sockets **39** and **42**, the elements **36** are substantially immobile and are consequently not likely to be displaced.

Referring now to Figures 3 to 7, inclusive, I show a preferred form of the invention wherein the device **45** has a portion **46** which lies in contact with the upper surface **11** of the angle iron side rail **34** of the bed, and this portion **46** is bent in the form of a channel so as to provide a portion **47** which underlies the angle iron **11**. A horizontal portion **48** is attached to the portion **46** by means of a hinge **49** and the horizontal portion also carries on its lower edge a hinge **50** which connects it to a depending element **51** and this depending element **51** carries an L-shaped extension **52** which is adapted when installed to form in effect a channel comprised of the angular portion **52** and the element **48**.

Secured on the portion **48** is a bracket **53** having a

rectangular passage 54 extending therethrough. Mounted on the depending element 51 is a bracket member 55 having a passage 56 therethrough, the lower end of which is closed by a plate 57 thereby forming a socket. A bar 58 which in the example shown is rectangular in form has its lower end first inserted in the passage 54 and then the bar is moved downwardly into the socket 56 until it encounters the bottom plate 57 which acts as a stop. The bar 58 may have a hole 59 formed therein to accommodate a rod such as the rod 60 or the rod 60 may be formed integral with the bar 58. When the bar is in the position shown in Figure 3, the device is immovably mounted on the angle iron side rail of the bed. I may provide a thumb screw 61 in the bracket 55 in some cases where the device is used around "violent" patients. The depending element 51 may be provided with spaced holes 62 so that when desired articles may be suspended therefrom. The steps in placing the device on the side rail 34 of the bed are illustrated in Figure 4, 5, 6 and 7 as a first step, the element 46 with its extension 47 is hooked over the top portion 11 of the side rail 34. Then the portion 48 is swung downwardly in the direction of the arrow until it is in contact with the vertical portion 12 of the side rail 34. This motion is shown in Figure 5 and Figure 6 shows the position of the elements when 48 is in contact with the depending portion 12. In Figure 6, the step is shown wherein the portion 51 is swung in a counter clockwise direction (direction of the arrow) about a hinge 50 so that the L-shaped extension 52 of the element 51 hooks over the lower edge of the portion 12, which position is best seen in Figure 7. Following this, the bar 58 is inserted through the passage 54 and into the socket 56 and thereby the device is mounted on the side rail 34 and locked without the necessity of the use of any tools or the like which may become lost.

Referring now to Figures 8 and 9, I show a modification of my device wherein it may be engaged with the side rail of a wooden bed. In this modification, an inverted U-shaped element 65 is comprised which has a long leg 63 extending downwardly on the outer face of the wooden rail 64, horizontal portion 66 which abuts the top edge of the rail 64 and a depending portion 67 which overlies the upper portion of the inner surface of the rail. Secured on the depending portion 63 is a socket member 68 which in some respects is similar to the socket member 56 described above. This socket member has a passage 69 therein which terminates with a bottom plate 70. This socket is adapted to receive a bar 71 similar to the bar 58 and it is arrested by the bottom plate 70 and this bar may have a hole therein to accommodate a rod 72 or the rod 72 may be formed integral with the bar.

Cooperating with the inverted U-shaped element 65 is an upright U-shaped element 73 which has a horizontal portion 74 in contact with the bottom edge of the rail 64, and an upwardly extending portion 75 which overlies the lower end of the depending portion 63, and an upwardly extending portion 76 which overlies the inner face of the rail 64 adjacent to the lower edge thereof. Aligned holes 77, 78 are formed in the portions 63 and 75 and a bolt 79 extends through the aligned holes and carries a wing nut 80 for easy tightening. The hole 78 may be in the form of an elongated slot to allow for adjustment to fit wooden rails 64 of different widths. If desired, a thumbscrew 81 may be provided for securing the bar 71 in the socket 69 particularly where the device is used with violent patients.

Although I have herein shown and described a preferred embodiment of the invention and two modifications thereof and although I have shown two types of attachment connected thereto, it will be obvious that many changes may be made, shown and described within the scope of the following claims and almost every conceivable type of apparatus for sick rooms may be supported thereby.

I claim:

1. In an attachment for a bed having side rails generally L-shaped in cross-section and having a horizontal and a vertical web, an attaching member having three elements hinged together and comprising; a first element generally J-shaped in cross-section adapted to hook over and lie in contact with the upper surface of said horizontal web, a second element adapted to be maintained in contact with the outer surface of said vertical web, a third element adapted to be maintained in vertical alignment with said second element and having an L-shaped extension which is movable therewith and adapted to overlie a portion of the inner surface of said vertical web, vertically aligned guide means on said last two elements adapted to receive bar means for holding said elements in rigid alignment, and support means carried by said bar means and extending substantially above the level of the surface of said bed for supporting at least one article.

2. In an attachment for a bed having side rails generally L-shaped in cross-section and comprising a horizontal and vertical web, an attaching member having a first element generally J-shaped in cross-section adapted to hook over and lie parallel to and in contact with the upper surface of said horizontal web, a second element hinged to said first element and carrying a guide member with a cavity therein disposed on a plane at a right angle to the vertical axis of said element, said last element being adapted to be maintained in a vertical plane in contact with the outer surface of said vertical web, a third element hinged to said second element and comprising a generally flat plate to be maintained in vertical alignment with said second element and carrying an L-shaped extension a portion of which is parallel to its main axis and adapted to overlie a surface of the inner portion of said vertical web, socket means carried by said third element in vertical alignment with said guide member, rigid means snugly fitting into both said guide means member and said socket means and adapted to hold said second and third elements in rigid alignment, and means supported by and forming an extension of said rigid means and extending above the level of said surface of said bed for supporting articles used in the treatment and comfort of a patient.

3. The invention according to claim 2 in which clamping means is carried by said member for securing said rigid means in said socket means.

4. The invention according to claim 2 in which said rigid means extending above the level of said surface of said bed is comprised of tubular members telescoped together so that the height of an article supported thereby may be varied relative to a patient in said bed, and means for clamping said tubes in any desired adjusted relation.

5. In an attachment for a bed having side rails which are generally L-shaped in cross-section, an element having three plate portions hinged together, a first portion of which is adapted to lie upon the upper surface of said side rail, a second portion adapted to hang vertically in contact with the outer surface of said side rail, a third portion which depends from said second portion also on a vertical plane, aligned guide means on said last two portions adapted to receive bar means for holding said last two portions in rigid alignment, hook means on at least one of said portions adapted to hook over a corresponding portion of said rail and to abet the holding of said attachment thereon, and means carried by said bar means for supporting an article.

References Cited in the file of this patent

UNITED STATES PATENTS

1,219,158	Rose	Mar. 13, 1917
1,233,502	Pertsch	July 17, 1917
1,247,369	Butler	Nov. 20, 1917
1,841,264	Horner	Jan. 12, 1932