# United States Patent

Speed

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## [54] BEDDING SUPPORT APPARATUS


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[21] Appl. No.: **39,639**

**Related U.S. Application Data**

[63] Continuation-in-part of Ser. No. 5,758, Jan. 26, 1970, abandoned.

[52] **U.S. Cl.**.....**5/319,** 108/49

[51] **Int. Cl.**.....**A47c 21/00,** A47c 23/00

[58] **Field of Search**.....5/332, 318, 320, 319, 321; 108/49



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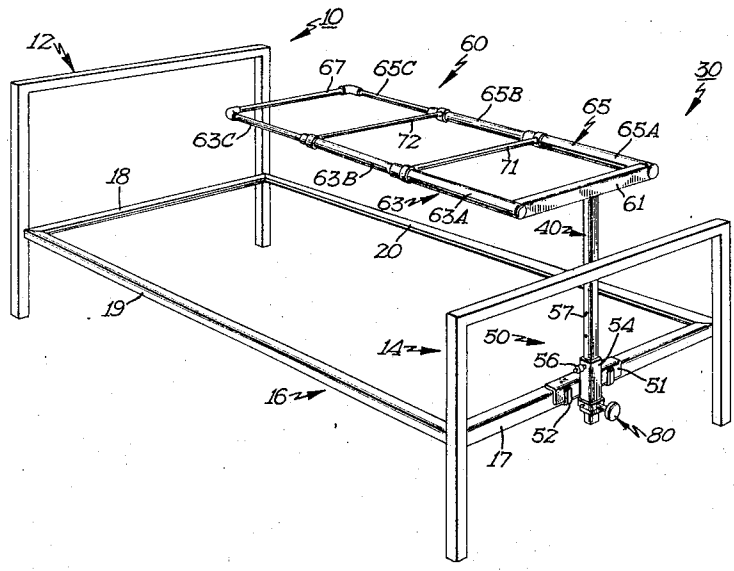
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[57] **ABSTRACT**

Support Apparatus for bedding comprising post means, means for attaching the post means to the central portion of the foot of a bed mattress support frame or to the central portions of the foot board of the bed so that the post means is vertically disposed, a cradle member having a first transverse section connected at its central point to the top of the post means, the transverse section having depending from the ends thereof two spaced apart longitudinal sections extending in parallel relationship and each having at least one stage of telescoping so as to be adjustable in the longitudinal sense, and a second transverse section connected to the other ends of the longitudinal sections whereby said cradle member may be positioned a selected amount along and in spaced parallel relationship with the mattress to thereafter serve as a support for bedding.


**12 Claims, 10 Drawing Figures**



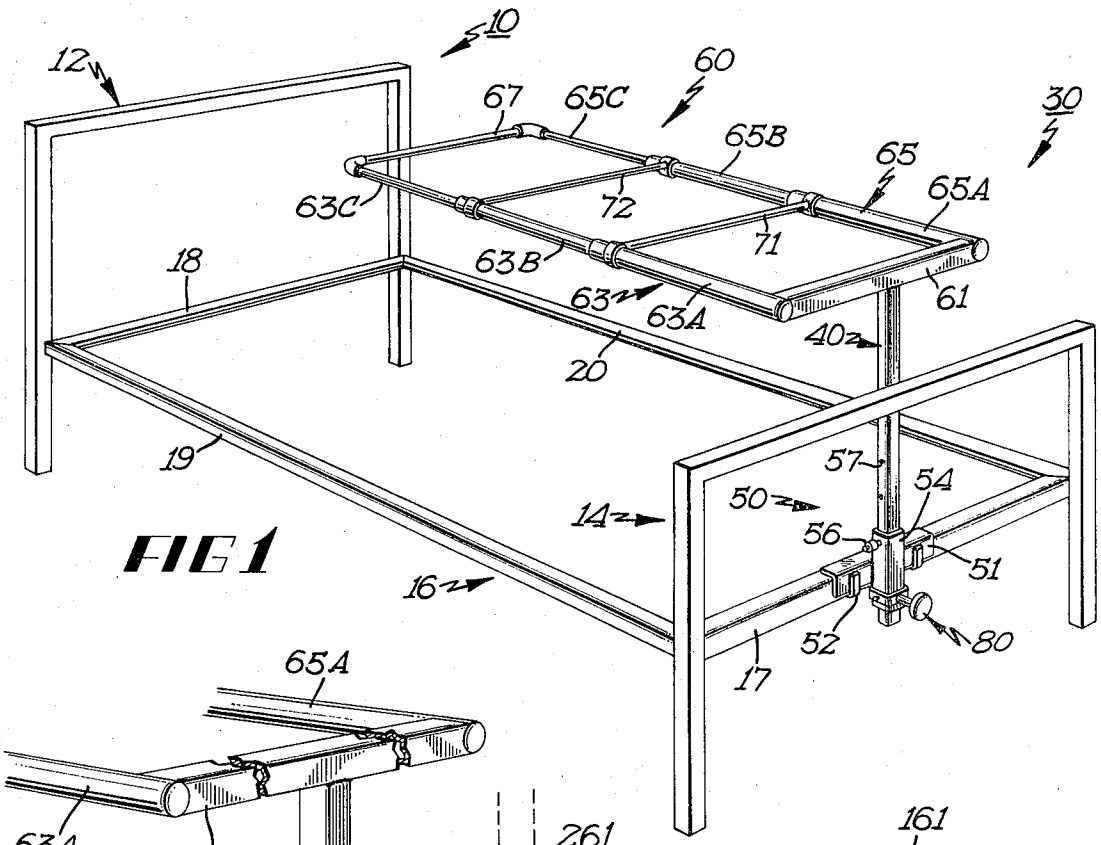



FIG 1

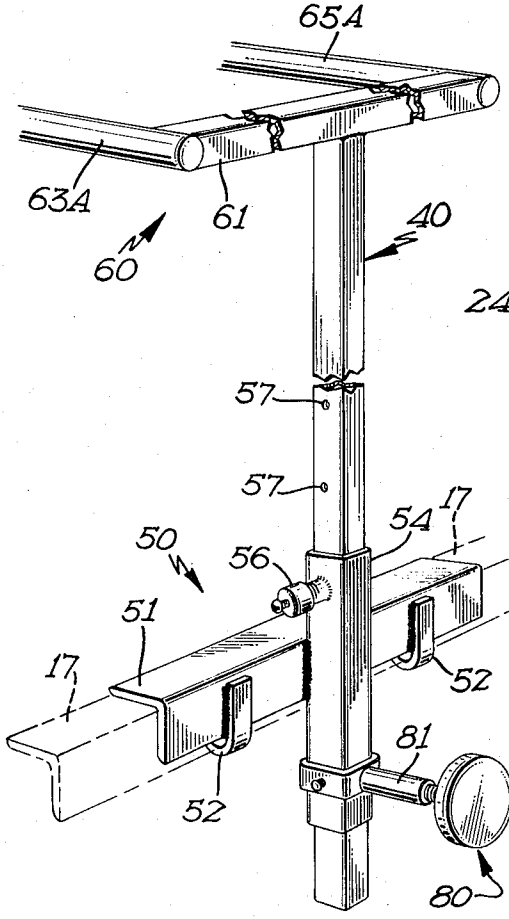



FIG 2

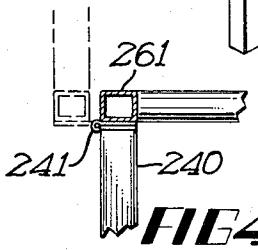



FIG 4

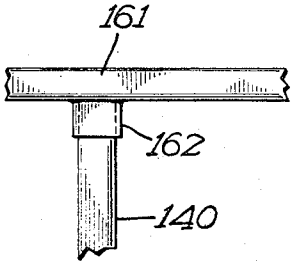



FIG 3

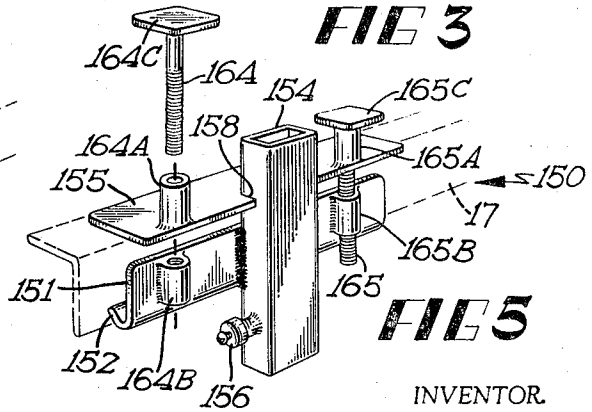



FIG 5

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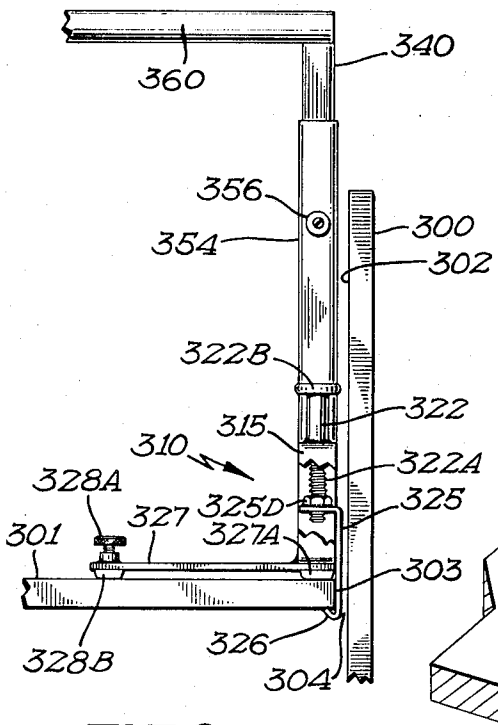



FIG 6

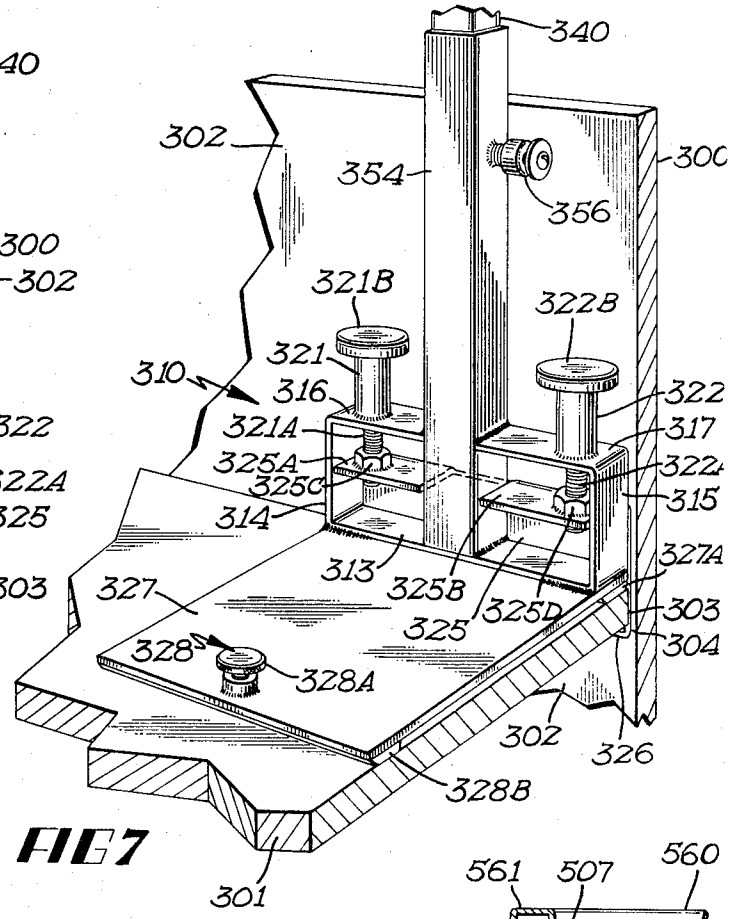



FIG 7

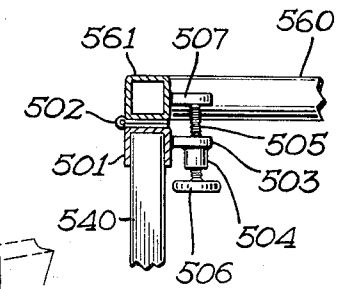



FIG 10

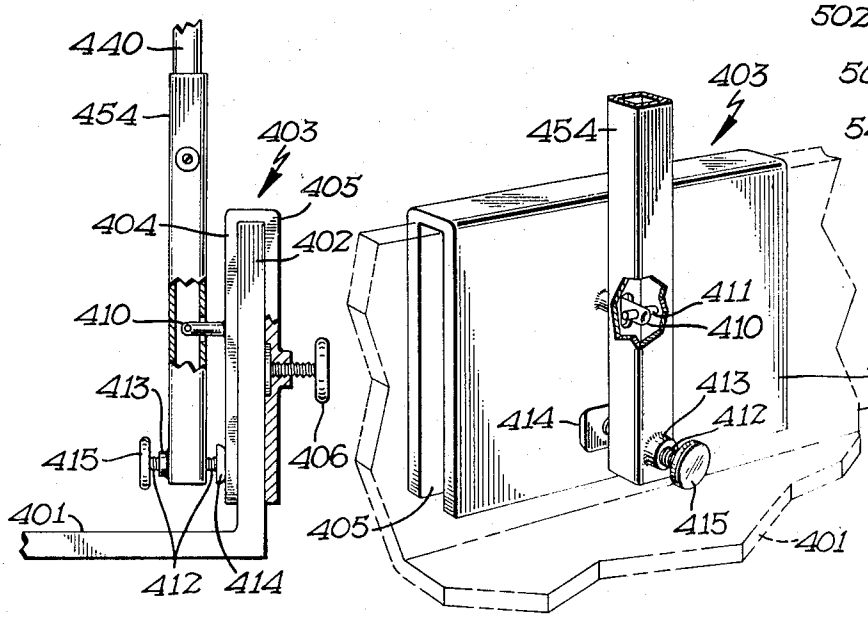



FIG 8




FIG 9

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# BEDDING SUPPORT APPARATUS

This application is a continuation-in-part of my application entitled "Bedding Support Apparatus" filed January 26, 1970, Ser. No. 5,758, now abandoned.

This invention has special application to the field of hospital beds where, as is well known, patients frequently have problems such as burns, ulcers, etc. on their legs and bodies which necessitate that the bedding, e.g., sheets, blankets, or the like, do not touch the skin surface of the patient. While it is essential that the bedding be out of contact with the patient, it is usually necessary that bedding be used to maintain the comfort (proper body temperature and privacy of the patient. It is therefore necessary to have a means for keeping the bedding in general proximity to the patient but yet not in contact with the patient.

There have been numerous proposed prior arrangements for achieving the above result but all of these prior arrangements for one reason or another have been unsatisfactory. They are either very expensive, extremely cumbersome and heavy requiring two or more persons for the installation thereof, and/or they tend to have apparatus in close proximity to the patient with which the patient will engage or come in contact to his discomfort. Another disadvantage of some prior arrangements is that they do not permit the bedding to be tucked in around both the sides and the foot of the mattress of the bed with resultant discomfort for the patient. Some of the prior arrangements were conceived, so it would seem, with cruel and inhuman treatment in mind because they were so discomforting to the patient.

An object of my invention therefore is to provide a bedding support means that is lightweight, easily installed by one person, which will support bedding without having any apparatus with which the patient will contact, and which will permit the bedding to be tucked under both the sides and the foot of the bed.

Other objects and advantages of my invention will become apparent to those skilled in the art upon reading the following detailed description of a preferred embodiment and modifications thereof wherein reference is made to the accompanying drawings in which:

FIG. **1** is an isometric view of a hospital bed having mounted thereon the bedding support apparatus;

FIG. **2** is a showing of details for the apparatus of FIG. 1; and

FIGS. **3**, **4**, **5**, **6**, **7**, **8**, **9** and **10** depict modifications of my invention.

Referring to FIG. **1**, reference numeral **10** generally depicts a hospital bed having a head **12** and a foot **14**. The bed is shown somewhat schematically so as to not detract from an understanding of my invention. A horizontally disposed rectangular mattress support frame **16** is supported in any of the well known arrangements by the head **12** and foot **14** of bed **10**. The frame **16** comprises a transverse foot member **17**, a transverse foot member **17**, a transverse head member **18**, and two longitudinal side members **19** and **20**. Although the frame **16** is shown to be of unitary or solid construction it will be understood that the present invention may be utilized with the widely used articulated type of frames that permit the mattress to be elevated at the head, at the foot, at the "knee" zone, etc.



Reference numeral **30** generally designates the bedding support apparatus comprising a post means **40**, an attaching means **50** and a cradle member **60**.

Post means **40** may be of a variety of configurations. It is depicted in FIG. **2** as being tubular with a generally square cross section but it will be understood that other cross sections, e.g., circular, triangular, oval, U-shaped, etc. may be used all within the scope of this invention. Also it may be solid instead of tubular if desired.

Attaching means **50** generally comprises a means for attaching post means **40** to the central portion of the transverse foot member **17** of the mattress support frame **16**, the post means when so attached being vertically oriented with respect to the horizontally disposed frame **16**. The attaching means **50** is shown in greater detail in FIG. **2** wherein it is depicted as including a bracket member **51** which has an inverted "L" cross-section to generally conform with the top and outboard external surfaces of the transverse foot member **17** of the mattress support frame. A pair of spaced apart lugs **52** attached to bracket **51** extend down and forward in hook-like fashion to serve as a means for permitting the bracket **51** to be hooked onto and engaged with the transverse frame member **17** to be held in place therewith. As viewed in FIG. **2**, the lugs **52** constrain bracket **51** from counter-clockwise motion but do not constrain clockwise motion. Thus the bracket **51** may be quickly attached to or detached from the frame member **17**. When so attached, the constraint against counter-clockwise motion assures that the cradle member **60** will be rigidly supported in parallel relationship with respect to the horizontally disposed bed frame **16**. Referring again to FIG. **2**, the attaching means **50** further comprises a tubular socket **54** attached (such as by welding) to the bracket **51** in between the lugs **52**. Tubular socket **54** is connected at a right angle to bracket **51** so that when the bracket member is attached to the mattress support frame **17** the axis of tubular socket **54** will be generally vertical. Tubular socket **54** is dimensioned so as to freely receive the post means **40** to permit the post means **40** to be slid up or down (along its longitudinal axis) with respect to the bracket means to be thereafter held fixedly in place by any suitable means such as a pin means **56** on socket **54** coacting with a plurality of holes or detents **57** in post means **40**.

The cradle member **60** comprises a first transverse section **61** and two spaced apart longitudinal sections **63** and **65** which depend in spaced apart parallel relationship from the two ends of the first transverse section **61**. Each of the longitudinal sections **63** and **65** have at least one stage of telescoping coacting parts to provide a means of adjustably varying the longitudinal extent thereof. As depicted in FIG. **1**, each of the longitudinal sections has two stages of telescoping. Thus longitudinal section **63** has a first element **63A** attached at one end to an end of transverse section **61**, and further comprises successively reduced elements **63B** and **63C**. Longitudinal section **65** has corresponding elements **65A**, **65B** and **65C**. The cradle member **60** further includes a second transverse section **67** connected to the outer ends of elements **63C** and **65C** of the longitudinal sections **63** and **65**, i.e., at the ends thereof remote from the first transverse section **61**. By having the ends of the longitudinal section **63** and **65**

joined at both ends by the transverse sections **61** and **67** and recognizing the function permitted by the telescoping sections, it then follows that a means has been provided for facilitating equal and simultaneous longitudinal adjustability of the longitudinal sections **63** and **65** and hence of the entire cradle member **50**. The cradle member, when fully extended, preferably is long enough to extend to a point adjacent to near the neck of a patient lying in the bed. The cradle is retractable preferably to a length where it would be adjacent the knees of a patient in the bed.

The central portion of the first transverse section **61** of cradle member **60** is adapted to be connected to the top of the post means **40**. In FIG. **1** this is shown as a rigid connection which may be a welded connection and which may be preferred for some applications of my invention.

However, it may be desired to have a means for selectively disengaging the cradle member **50** from the post means **40**. For example, it may be desired to store the support apparatus **30** (when not in use) with the post means **40** disengaged or separated from the cradle member **50**. One arrangement for accomplishing this is depicted in FIG. **3** wherein a portion of a first transverse section **161** of a cradle member is shown having connected to the underside of the central portion thereof a socket **162** attached by any suitable means and said socket **162** being adapted to receive the top of post means **140**.

FIG. **4** shows yet another modification of the connection means between the post means and the cradle member, the connection means being in the form of a hinge element **241** fastened in between the top of a post means **240** and a first transverse section **261** of a cradle member. The hinge means is arranged to permit the cradle member to be supported in the position of being horizontal and spaced above a mattress (not shown) supported on the mattress frame or to be pivoted counterclockwise as shown in FIG. **4** into or beyond a vertical position.

In operation, the post means is adjusted along its longitudinal axis with respect to the attaching or bracket means **50** so that the top thereof is at a desired point above the surface of a mattress (not shown) supported on the top of the mattress frame **16**. With the cradle member **60** attached to the top of post means **40**, it follows that by adjusting the post means along its longitudinal axis, i.e., in the vertical sense, with respect to the bracket means **50** then the entire cradle member **60** will be positioned in a selected distance above any such mattress. Further, by adjusting the longitudinal extent of the cradle means by use of the telescoping sections it follows that the cradle means may be extended longitudinally from the foot of the bed a selected amount toward the head of the bed in spaced parallel relationship to the mattress to thereafter serve as a support for bedding.

It may be desirable to have the support means serve not only as a support for bedding and the like but also for auxilliary apparatus such as a heat lamp and to this and I have provided a plurality of auxiliary transverse members **71** and **72** each of which is slidably connected at its ends to the longitudinal section **63** and **65**.

In operation once the cradle member has been positioned a selected distance above the mattress and extended longitudinally a selected amount along and in spaced parallel relationship to the mattress, then bedding, e.g., a sheet, may be suspended over the cradle member with the sides of the bedding sloping tent-like downwardly and outwardly from the longitudinal sections **63** and **65** of the cradle toward the sides of the mattress to be thereafter tucked thereunder and with the foot of the bedding or sheet sloping downwardly from the first transverse section **61** of the cradle toward the foot of the mattress to be thereafter tucked around the post means and under the foot of the mattress. Because the post means is attached directly to the mattress support frame through the attaching means **50**, the bedding may be tucked directly under the foot of the mattress and around the post means so that the entire foot of mattress is enclosed by the bedding, i.e., along the sides and under the foot, thus assuring patient comfort.

The entire apparatus may be very lightweight. For example, I have found that light weight tubing, e.g., aluminum, works very satisfactorily for the cradle member transverse sections **67**, **71** and **72** and longitudinal sections **63** and **65**. The apparatus may be easily installed by one person such as a nurse or other hospital personnel. The attaching means **50** is first connected to the frame section **17**. The post means **40** is then inserted into the tubular socket **54** and adjusted along its longitudinal (vertical axis) as desired and the cradle member **60** is extended as desired.

When the apparatus is in use, if desired, either the patient ot a hospital attendant may further extend or retract the cradle. The cradle, for example, might be temporarily retracted while the patient changes from a reclined position to a sitting position. The second transverse section **67** of the cradle may be grasped by either the patient or the attendant for the longitudinal adjustment, i.e., extension or retraction.

At all times the patient is assured of maximum comfort. It is most improbable that his limbs or body would inadvertently strike the support apparatus. Further, the bedding may be tucked under the matress along the sides and across the foot thereof assuring proper body temperature and privacy.

As discussed, the lugs **52** constrain bracket **51** (and hence the entire post means **40** and cradle member **60**) from counterclockwise movement about the axis of bracket **51** as viewed in FIG. **2**. This assures that cradle member **60** will be securely held above and in spaced parallel relationship with the mattress. If it is desired to further stabilize and lock the cradle member in this position, then a stabilizer **80** may be utilized. In FIG. **2**, the stabilizer **80** is shown attached to the lower portion of the tubular socket **54**. The stabilizer **80** includes an arm **81** extending out from socket **54** at a right angle toward an appropriate section (not shown) of the foot **14** of the bed. A suitable means (e.g. screw threads) associated with arm **81** permits its longitudinal extent to be selectively adjusted so that a solid connection is established between the foot of the bed and the socket **54**. Thus bracket **51** is further constrained against counterclockwise movement (as viewed in FIG. **2**) and the entire support apparatus is thus stabilized as aforesaid. With stabilizer **80** installed as in FIG. **2**, the bracket **51** is not constrained against clockwise motion. If there was apprehension that the patient would push

up on the transverse section **67** of the cradle **60** and thus tend to disengage the bracket **51** from the frame member **17**, this can be prevented by attaching stabilizer **80** to the upper portion of the tubular socket **54**, i.e., above the top surface of the bed frame.

I have also recognized that, from one model bed to another, there is some variation in the size of the bed frame, i.e., in the "cross-section" dimensions. It is desirable, for a bedding support apparatus that is to be used with beds with such varying frames, to have an attaching means that may be adjustable to fit all such frames. In FIG. **5** is shown an adjustable attaching means which I have developed, and which is generally identified by reference numeral **150**. It comprises a lower clamp member **151** having a "J" cross section to define a ledge or shoulder **152**. A tubular socket **154** is attached as by welding to the center of clamp member **151**. An upper clamp member **155** is provided to coact with lower clamp member **151** to clamp therebetween the transverse foot member **17** of the bed frame. A notch **158** in upper clamp member **155** permits it to be freely moved up and down with respect to the socket **154**. A pair of adjustable threaded rods **164** and **165** are adapted to freely pass through bushings **164A** and **165A** respectively integrally mounted on the upper clamp member **155** and to be received by internally threaded log portions **164B** and **165B** respectively which are integral with the lower clamp member **151**. To facilitate the manual rotation of the rods **164** and **165** suitable head or knob portions **164C** and **165C** are provided. In operation the lower clamp member **155** and to be received by internally threaded lug portions **164B** and **165B** respectively which are integral with the lower clamp member **151**. To facilitate the manual rotation of the rods **164** and **165** suitable head or knob portions **164C** and **165C** are provided. In operation the lower clamp member **151** is positioned so that the shoulder **152** thereof is in engagement with the lower edge or surface of the central portion of the transverse foot member **17** of the bed frame. The upper clamp member is then brought into engagement with the top surface of the member **17** and the rods **164** and **165** are screwed into the threaded log portions **164B** and **165B** until the member **17** is tightly clamped therebetween. This then positions the longitudinal axis of socket **154** in a vertical orientation. As shown, socket **154** has an elongated rectangular cross-section as compared to the square cross-section of socket **54** of FIG. **2**. This has been so depicted to illustrate some variation in the cross-section configurations of the post receiving sockets (and hence of the coacting posts) as aforesaid. Also, the "thin" socket **154** of FIG. **5** may be especially advantageous for beds having narrow clearances between the bed frame and the foot board. In FIG. **5** a pin actuating means **156** is provided similar to means **56** of FIG. **2** for coaction with the post means not shown to selectively lock the same in place.

I am aware that there are some hospital-type beds currently being manufactured which have very little clearance between the foot of the mattress-supporting means and the so-called foot board of the bed. A portion of such a bed is depicted in FIGS. **6** and **7** in combination with a special post attaching means which I have developed for this type of bed.

FIG. **6** is a side view of a portion of a bed on which is the special post attaching means and FIG. **7** is an isometric view of the same apparatus as viewed looking from the head of the bed toward the foot of the bed and with the mattress supporting means and the bed foot board shown in cross-section.

In FIGS. **6** and **7** the reference numeral **300** designates a solid foot board of a bed, the lower portion of which is not depicted. The foot board **300** is rigidly supported by a well known means (not shown) as part of the total bed assembly. The reference numeral **301** designates the "foot" end portion of portion of a mattress supporting means. As depicted, it is of solid "-board-like" construction, i.e., not per se resilient as a bedspring although there also are beds currently being manufactured of the latter type which have the same "-slight clearance" characteristic depicted in FIGS. **6** and **7**. To explain this further, the patient or head side or surface of the solid foot board **300** is identified by reference numeral **302** and the transverse edge surface of the mattress support means **301** is identified by reference numeral **303**.

It will be noted in FIG. **6** that there is a relatively small clearance or gap **304** between the surface **302** of the footboard **300** and the surface **303**. In one bed currently being manufactured, by way of example, the actual clearance is between one-eighth inch and one-quarter inch. This slight clearance does not permit the use of an attaching means such as those shown in FIGS. **1, 2** and **5** because, obviously the sockets **54** and **154** would be too wide (as measured along the longitudinal axis of the bed) to fit within gap **304**.

For this type of bed I have provided a special attaching means comprising a socket portion **354** having a similiar function to sockets **54** and **154** of FIGS. **1** and **5** respectively, i.e., a means for attaching a post means to the central portion of the foot of the bed. In FIG. **6** the post means is designated by reference numeral **340** and an associated cradle member is designated by the reference numeral **360**. It will be understood that the complete post cradle would be substantially the same as depicted in FIGS. **1** and **2** subject to the permissible variations and modifications such as those shown in other figures of the drawings. For example, an adjustment means **356** is associated with post means **354** to provide a function analogous as that of means **56** and **156** depicted in FIGS. **1, 2** and **5**.

The special post attaching means depicted in FIGS. **6** and **7** includes a clamping arrangement connected to the lower portion of post means **354** and which is generally designated by the reference numeral **310**. It comprises a frame having a base portion **313**, a pair of vertical portions **314** and **315**, and a pair of top sections **316** and **317**. The bottom of the post **354** is attached by welding to the central portion of section **313** of the frame and the post is further connected as by welding to the ends of sections **316** and **317**. The frame is further provided with a pair of bushings **321** and **322** which are integral with the sections **316** and **317** and which depend upwardly therefrom along axes substantially parallel to the longitudinal axis of the post **354**. A pair of threaded rods **321A** and **322A** having knob or head portions **321B** and **322B** respectively at the tops thereof are adapted to freely pass through bushings **321** and **322**. The threaded rods **321A** and **322A** are sub-

stantially longer than the bushings **321** and **322** so that the lower extremeties thereof depend downwardly toward the base section **313**. A vertically movable clamping member **325** having a main vertical portion adjacent to the outboard side of the frame **313-317** and a pair of inwardly extending flange portions **325A** and **325B** at the top thereof. The clamping member **325** is connected to the lower ends of the threaded rods **321A** and **322A** by threaded lug portions **325C** and **325D** respectively integral with flange portions **325A** and **325B**. At the bottom of member **325** is an inwardly extending shoulder **326** adapted to engage the underside of the mattress support means **301**.

The attaching means further includes a flat plate-like member **327** connected at one end thereof to the underside of base portion **313** of the frame and which extends toward the head of the bed a relatively short distance. Plate **327** serves the function of providing stability to the entire post attaching means from the standpoint of supporting the associated cradle **360**. If desired, a cradle-plane adjustment **328** integral with the plate **327** may be provided. It is depicted in FIGS. **6** and **7** as a threaded rod positioned in an internally threaded lug of plate **327** adjacent the inboard end thereof. The adjustment means **328** has a head portion **328A** and a bearing portion **328B**. When the head **328A** is rotated then the angular relationship between the mattress support means **301** and the longitudinal axis of the socket **354** is altered and thus a means has been provided for varying the plane of the cradle member **360** with respect to the top surface of a mattress (not shown) supported on top of the mattress support means **301**.

The attaching means depicted in FIGS. **6** and **7** in practice is quite easily installed by the threaded rods **321A** and **322A** initially being rotated so that there is a substantial amount of clearance between the shoulder **326** at the bottom of vertically adjustable member **325** and the underside of plate **327**. The entire assembly comprising the socket **354** and its associated attaching means is then connected to the mattress supporting means **301** (at this time the mattress would be temporarily moved from its normal position out of contact with the mattress supporting means **301**). The member **325** with its associated lower shoulder **326** is relatively thin so that it may be slid down through the gap **304** and then the knobs **321B** and **322B** are rotated so as to lift the movable member **325** upwardly to the point where the shoulder **326** thereof engages the underside of the mattress supporting means **301**. The knobs **321B** and **322B** are rotated until a tight clamping of the mattress support means **301** occurs, it being understood that the clamping takes place between the underside of the plate **327** (at bearing point **327A**) and the shoulder **326** on the movable member **325** which is connected to the lower extremities of the threaded rods **321A** and **322A**.

I am also aware that there are some hospital-type beds currently being manufactured wherein the so-called foot board is an integral part of the mattress support means. My invention may also be very conveniently used with this type of bed. FIGS. **8** and **9** depict a special attaching means to be used with this type of bed. FIG. **8** is a side elevation partly in section of a portion of such a bed and FIG. **9** is an isometric view of the apparatus depicted in FIG. **8** as viewed from the head of the bed looking toward the foot of the bed.

In FIG. **8** the reference numeral **401** designated a solid mattress supporting means which is generally horizontally disposed between the foot and the head of the total bed. In FIG. **8** the head of the bed is not shown but the foot of the bed is identified by reference numeral **402** and it is shown to be integral with the foot end of mattress supporting means **401** and extending upwardly; i.e., in a vertical orientation as referenced to the generally horizontally disposed mattress supporting means **401**. As has been the case with the previously described attaching means for my invention, the apparatus depicted in FIGS. **8** and **9** constitutes a means for attaching the post means to the central portion of the foot of the bed. More specifically an inverted U-shaped bracket **403** adapted to be slid down over the top of the foot board **402** is provided and comprises a forward or inboard portion **404** and a rear or outboard portion **405**. An adjustable screw means **406** associated with portion **405** provides a means for adjustably clamping the "U" shaped bracket **403** to the foot board **402** of the bed.

In FIGS. **8** and **9** a socket **454** is provided for serving as part of the attaching means for a post means **440** to the bed, it being understood that at the top of the post means **440** would be a connection to a cradle member, not shown, but which cradle member generally would be similar to the cradle member **60** shown in FIG. **1**. The post **454** is adapted to be attached to U-shaped bracket but spaced therefrom by a supporting member **410** which is depicted as a rod-like member integrally connected at one end as by welding to portion **404** of the U-shaped clamp **403** and having at its other end a transversely positioned pivot pin **411**. Pivot pin **411** in turn is connected at its two extremities to the socket **454**. The connection **410** with its pivotal means **411** connected to the socket **454** provides a dual function of generally supporting the socket **454** in the vertical sense and simultaneously permits limited relative rotation of the socket **454** with respect to the inverted U-shaped clamp **403** about the pivotal axis defined by pivot pin **411**. This limited pivotal movement may be utilized in some applications of my invention for the purpose of adjusting the plane of the cradle with respect to the plane of the top surface of the mattress (not shown) supported on top of the mattress means **401**. In general it is desirable to have the plane of the cradle in parallel relationship to the top surface of the mattress. A threaded rod **412** carried by a threaded lug **413** at the lower end of the socket **454** has at its one extremity a bearing portion **414** and at its other extremity a knob **415** for facilitating manual rotation thereof. It will be understood that the rotation of the threaded rod **412** with respect to the internally threaded lug **413** will cause a co-action between the bearing portion **414** and the portion **404** of the U-shaped clamp **403** so that there will be relative rotation between the socket **454** (about the pivotal axis **411**) with respect to the bracket **403** and hence with respect to the entire bed assembly. By this a means has been provided for adjusting the plane of the cradle **360** with respect to the top surface of the mattress (not shown).

It will be understood that with both the special attaching means depicted in FIGS. **6** and **7** on the one

hand and FIGS. 8 and 9 on the other hand that the bedding may be tucked under not only the sides of the mattress but also under the foot of the mattress. In the case of the attaching means shown in FIGS. 6 and 7 the overall size of the apparatus 310 attached to the bottom of the socket 354 is relatively small in comparison to the total width of the mattress and hence the apparatus does not meaningfully interfere with the tucking in of the sheets, blankets, etc. By the same token, the modification of my invention depicted in FIGS. 8 and 9 also permits the bedding to be tucked in, the socket 54 being spaced away from the foot of the bed by support pin 410 a sufficient distance so that, to the extent desired, the bedding may be tucked in under the foot of the mattress.

On FIG. 10 I have shown another modification of my invention wherein the top of a post means 540 is depicted and where a portion of the associated cradle member 560 is shown attached thereto through a special connection means comprising a socket portion 501 adapted to fit on top of the post means 540 and connected through hinge means 502 to the central portion of a first transverse section 561 of the cradle 560. Socket 501 is analogous to socket 162 of the apparatus shown in FIG. 3 and hinge means 502 is analogous to the hinge means 241 depicted in FIG. 4. In addition the socket 501 has a flange portion 503 integral therewith extending toward the head of the bed from the socket 501 and connected integrally therewith is an internal threaded lug portion 504 for receiving a threaded rod 505 having a knob portion 506 at the lower end thereof. The other or upper end of the rod 505 67 adapted to bear against the underside of a flange 507 which is integral with the first transverse section 561 of the cradle 560 and which also extends toward the head of the bed. It will be understood that rotation of the threaded rod 502 will result in relative rotation of the cradle 560 with respect to the post means 540. On the assumption that the post means 540 is rigidly connected to the bed (not shown) then it follows that relative rotation of the threaded rod 505 will provide a means of adjusting the plane of the cradle 560 with respect to the top surface of the mattress on the bed.

Finally, it is recommended that the transverse width of the cradle member be approximately the width of an adult person. This then will provide an optimum arrangement allowing the support apparatus to be used with "standard"-sized hospital bedding.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. Support apparatus for bedding and the like for use with a bed having a horizontally disposed rectangular mattress support frame lying between the foot and the head of the bed and with said frame having a transverse foot member, said support apparatus comprising:

a. post means;

b. means for attaching said post means to the central portion of said transverse foot member of said mattress support frame, said post means when so attached being vertically oriented with respect to said horizontally disposed frame;

c. means for selectively adjusting said post means relative to said attaching means along the longitudinal axis of said post means so that the top end of said post means may be selectively vertically adjusted with respect to the top of a mattress supported on top of said mattress support frame;

d. a cradle member having a first transverse section, two spaced longitudinal sections respectively depending in parallel relationship from the two ends of said first transverse section, said longitudinal sections each having at least one stage of telescoping coacting parts to provide a means of adjustably varying the longitudinal extent thereof, a second transverse section connected to said longitudinal sections at or near the ends thereof remote from said first transverse section so as to provide equal and simultaneous longitudinal adjustability of said longitudinal sections; and

e. means for connecting the central portion of said first transverse section of said cradle member to the top of said post means so that said cradle member is supported thereby and disposed (when said post is vertically oriented with respect to said frame) generally in a horizontal plane spaced above and parallel to said mattress and extending from said foot of said bed forward toward said head of said bed, whereby said cradle member may be (1) positioned a selected distance above said mattress and (2) extended longitudinally a selected amount along and in spaced parallel relationship to said mattress to thereafter serve as a support for bedding (e.g., a sheet) with the side of the bedding sloping "tentlike" downwardly and outwardly from said longitudinal sections toward the sides of said mattress to be thereafter tucked thereunder and with the foot of the bedding sloping downwardly from said first transverse section toward the foot of said mattress to be thereafter tucked around said post means and under the foot of said mattress.

2. Support apparatus as claimed in claim 1 further characterized by said attaching means (b) and said adjusting means (c) comprising a bracket adapted to coact with and to be connected to said central portion of said transverse foot member of said frame, a tubular socket connected to said bracket for receiving said post means, and pin means on said tubular socket for coacting with a plurality of detents on said post means.

3. Support apparatus as claimed in claim 1 hereof further characterized by connecting means (e) comprising a socket portion so as to permit said cradle member to be selectively connected to or disconnected from the top of said post means.

4. Support apparatus as claimed in claim 1 further characterized by connecting means (e) comprising a hinge member to permit said cradle member to be selectively rotated away from its normal horizontal position above said mattress.

5. Support apparatus as claimed in claim 1 hereof further characterized by including an additional means attached to the bottom of said post means and adapted to bear against the foot of said bed so as to stabilize said cradle member in a horizontal plane spaced above and parallel to said mattress.

6. Support apparatus as claimed in claim 1 further characterized by said cradle member having at least one auxilliary transverse member slidably connected at its ends to said longitudinal sections so as to augment the support of bedding and to serve as a support means for auxilliary apparatus such as a heat lamp.

7. Support apparatus as claimed in claim 1 further characterized by said attaching means (b) comprising an adjustable two-part bracket means which is adapted to coact with and be clamped to said central portion of said transverse foot member of said frame, said two parts of said two-part bracket means being adapted to be freely abutted against the upper and the lower surfaces of said central portion of said transverse foot member and thence held in such abutting position by locking means associated therewith to thereby hold said attaching means rigidly with respect to said bed frame.

8. Support apparatus for bedding and the like for use with a bed having a mattress support means generally horizontally disposed between the foot and the head of the bed, said support apparatus comprising:

a. post means;

b. means for attaching said post means to the central portion of said foot of said bed, said post means when so attached being vertically oriented with respect to said horizontally disposed mattress support means;

c. means for selectively adjusting said post means relative to said attaching means along the longitudinal axis of said post means so that the top end of said post means may be selectively vertically adjusted with respect to the top of a mattress supported on top of said mattress means;

d. a cradle member having a first transverse section, two spaced longitudinal sections respectively depending in parallel relationship from the two ends of said first transverse section, said longitudinal sections each having at least one stage of telescoping coacting parts to provide a means of adjustably varying the longitudinal extent thereof, a second transverse section connected to said longitudinal sections at or near the ends thereof remote from said first transverse section so as to provide equal and simultaneous longitudinal adjustability of said longitudinal sections; and

e. means for connecting the central portion of said first transverse section of said cradle member to the top of said post means so that said cradle member is supported thereby and disposed (when said post is vertically oriented with respect to said horizontally disposed mattress support means) generally in a horizontal plane spaced above and parallel to said mattress and extending from said foot of said bed forward toward said head of said bed,

whereby said cradle member may be (1) positioned a selected distance above said mattress and (2) extended longitudinally a selected amount along and in spaced parallel relationship to said mattress to thereafter serve as a support for bedding (e.g., a sheet) with the sides of the bedding sloping "tentlike" downwardly and outwardly from said longitudinal sections toward the sides of said mattress to be thereafter tucked thereunder and with the foot of the bedding sloping downwardly from said first transverse section toward the foot of said mattress to be thereafter tucked around said post means and under the foot of said mattress.

9. Support apparatus as claimed in claim 8 further characterized by connecting means (e) comprising hinge means to permit said cradle member to be selectively rotated away from its normal horizontal position above said mattress.

10. Support apparatus as claimed in claim 1 further characterized by connecting means (e) comprising hinge means to provide for at least limited relative rotation between said cradle member and said post means about a rotational axis, and adjustment means connected between said cradle member and said post means to selectively position said cradle means relative to said post means about said rotational axis.

11. Support apparatus as claimed in claim 1 further characterized by including means for selectively angularly adjusting the plane defined by the cradle member with respect to the plane defined by the top surface of said mattress.

12. Support apparatus as claimed in claim 8 further characterized by attaching means (b) comprises a first member adapted to be securely connected to said foot of said bed and a second member connected between said first member and said post means so as to support said post means in spaced relationship to said foot of said bed.

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