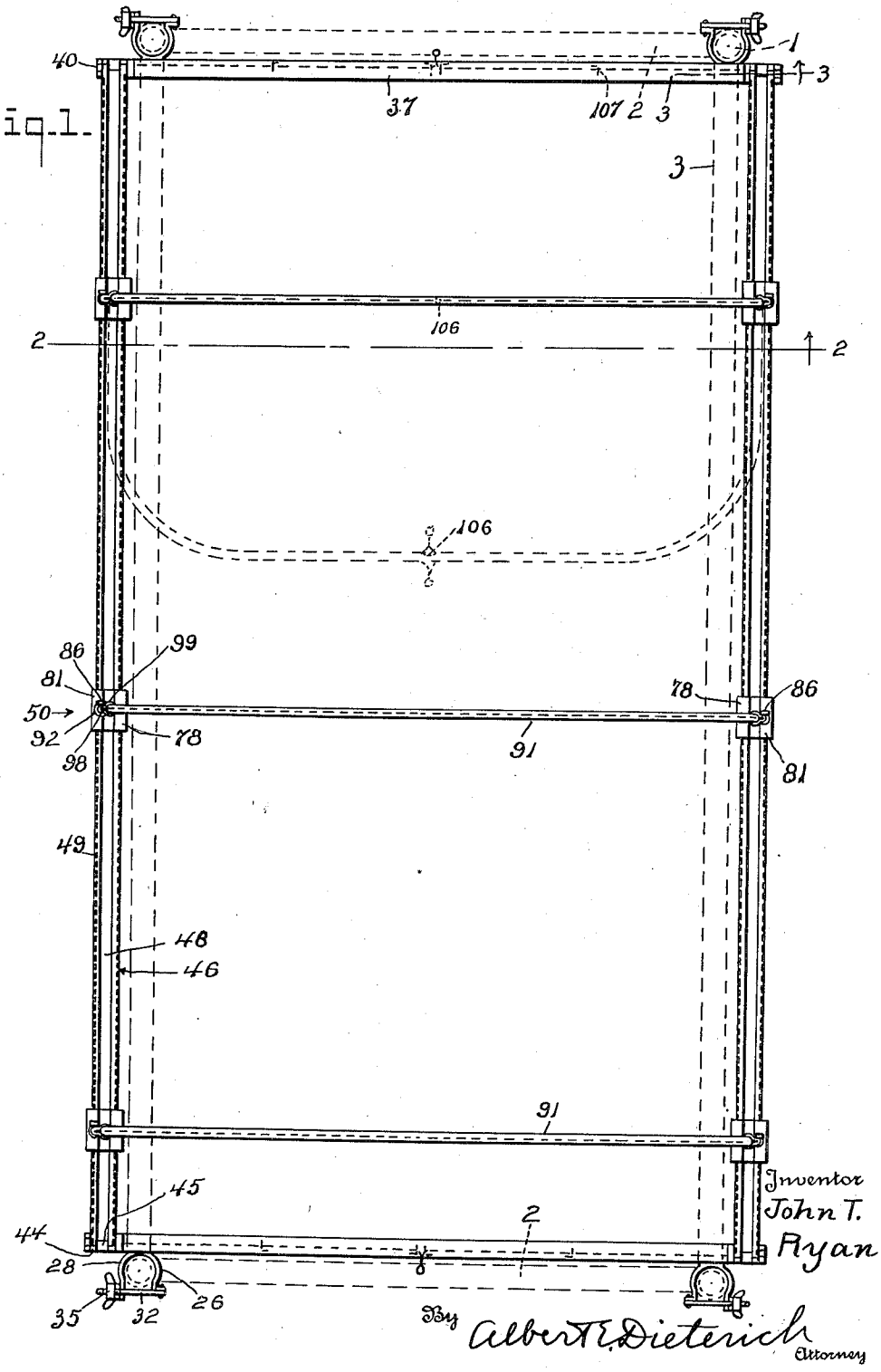
April 19, 1938. J. T. RYAN 2,114,575

ADJUSTABLE COVER SUPPORT OR CRADLE

Filed March 13, 1936 4 Sheets-Sheet 1

Fig. 1.



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ADJUSTABLE COVER SUPPORT OR CRADLE

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Fig. 2.

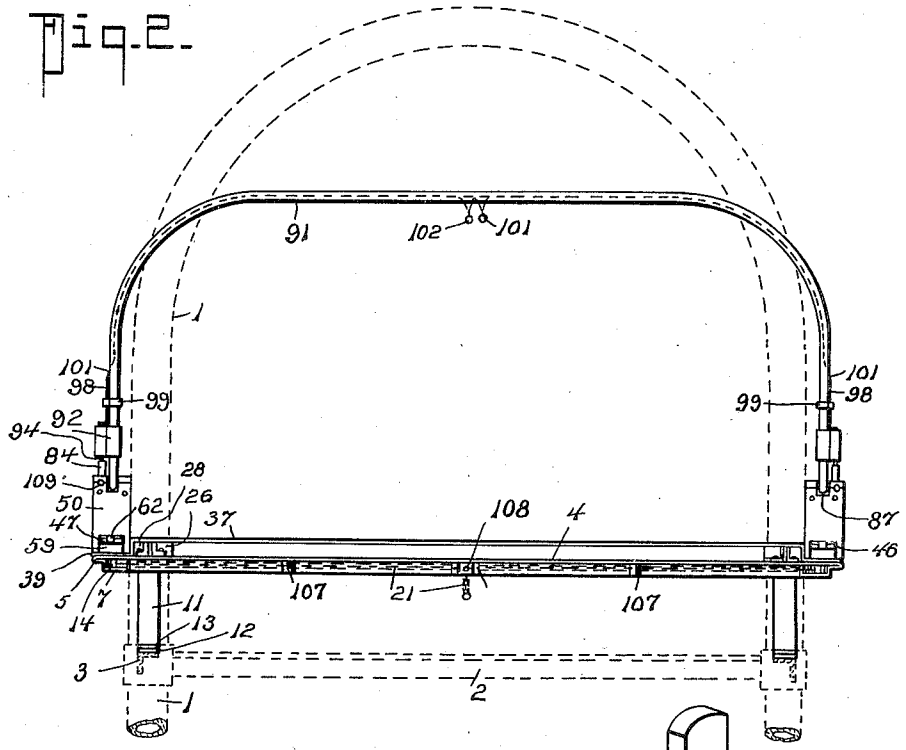


Fig. 10.

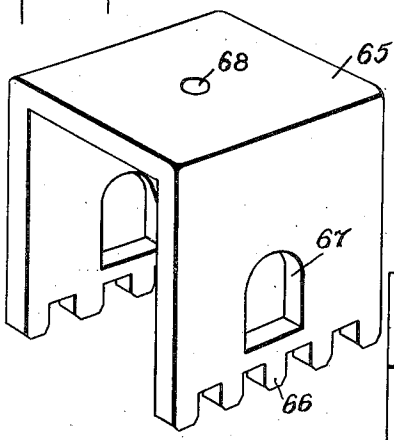


Fig. 13.

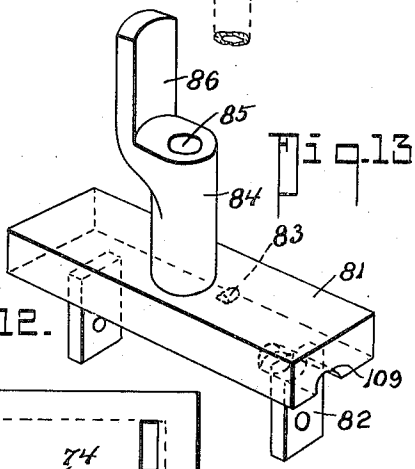


Fig. 12.

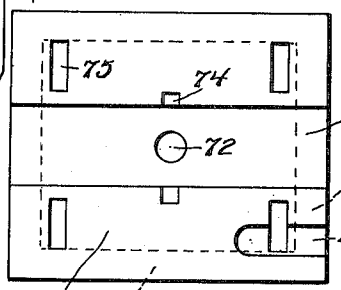
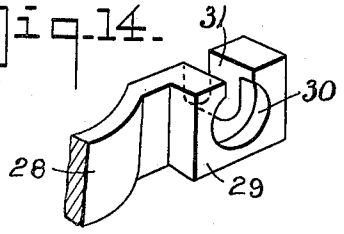


Fig. 14.



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ADJUSTABLE COVER SUPPORT OR CRADLE

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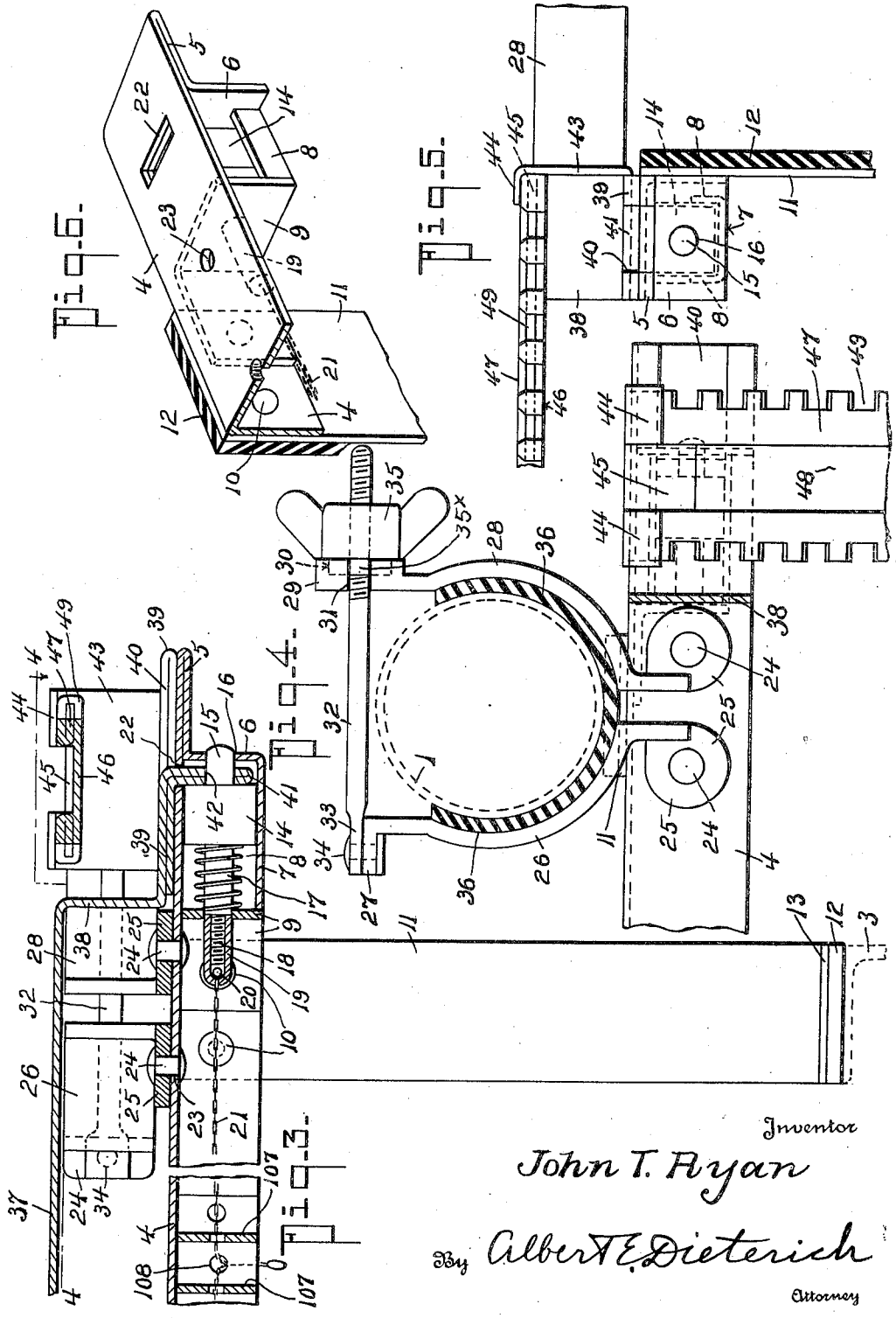


Fig. 5.

Fig. 4.

Fig. 3.

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ADJUSTABLE COVER SUPPORT OR CRADLE

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Fig. 8.

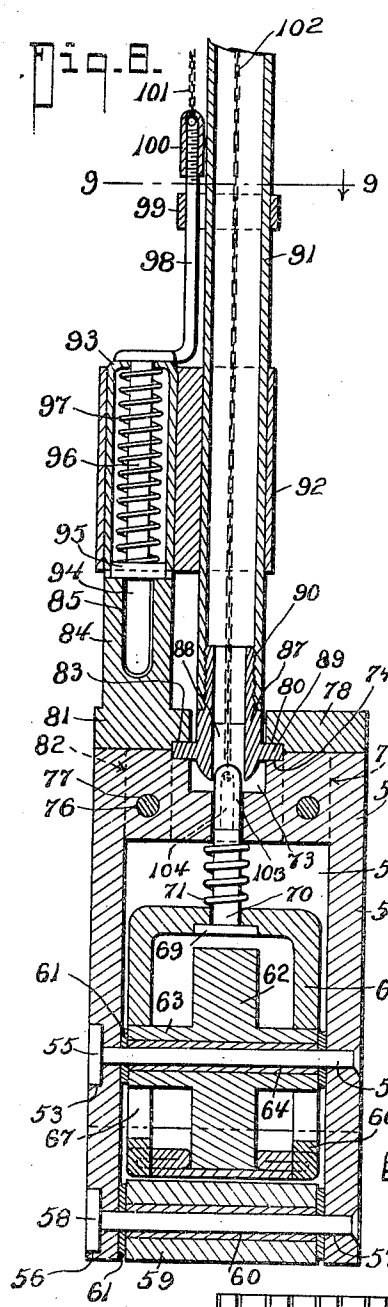


Fig. 7.

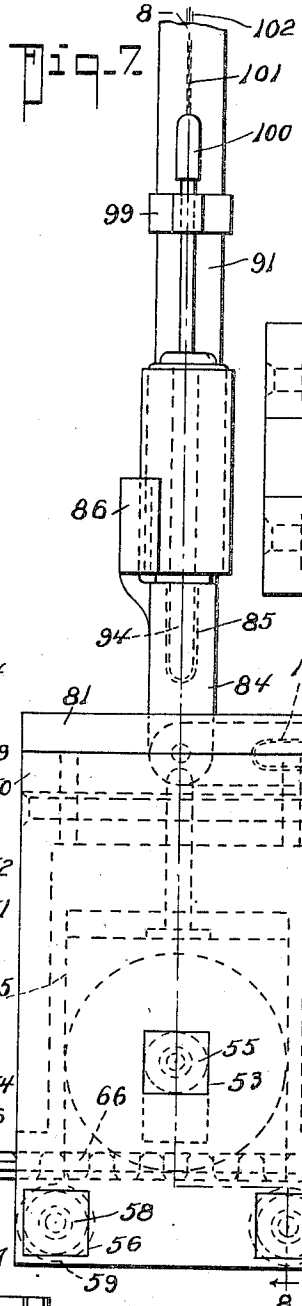
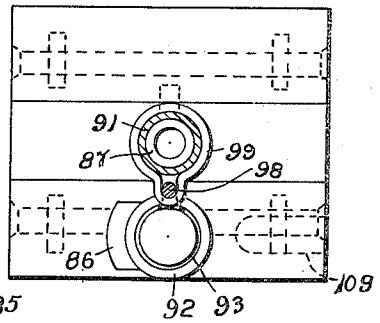


Fig. 9.



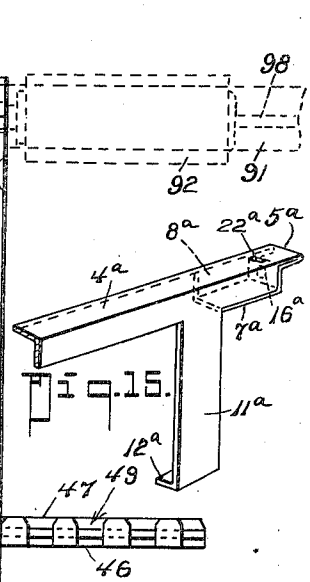
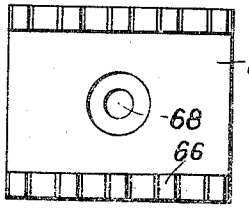


Fig. 15.

Fig. 11.



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Patented Apr. 19, 1938 2,114,575

UNITED STATES PATENT OFFICE

2,114,575

ADJUSTABLE COVER SUPPORT OR CRADLE

John Thomas Ryan, San Jose, Calif., assignor of one-half to George Grant Gere, San Jose, Calif.

Application March 13, 1936, Serial No. 68,773

21 Claims. (Cl. 5—319)

The present invention relates to attachments to hospital or invalid beds and it primarily has for its object to provide a simple, economically constructed, easily adjustable means to hold the bed-covers elevated above the patient.

Further, it is an object to provide a support for the bed-clothes which does not require removing once it is attached to the bed until it becomes necessary or desirable to dispense with it entirely.

Again, it is an object to provide means by virtue of which the attending doctors and nurses may be enabled to administer service in any way and on any part of the body without having to remove the cradle from the bed and again attach it, thereby saving time and doing away with the usual inconveniences for both the doctors and nurses.

A further object is to provide a cradle which can be operated by one attendant.

A further object is to provide a support of the character stated which may be attached to the bed before the patient enters or is placed on the bed.

Still further, the invention has for an object to provide a cradle or bed-clothes support that can be used for any and all purposes for which such apparatus is intended, or for which it may be found adaptable, including its use in morgues and in holding post mortems.

Yet another object of the invention is to provide an apparatus of the character described which, when not in use, can be folded and stored away, occupying but a minimum of space.

Another object is to provide an apparatus which, generically, comprises three separate units: Two bracket units, one for attachment to the head bed-posts and one for attachment to the foot bed-posts, and the third unit is the bed-cover support or cradle proper, the latter being mountable on and removable from the bracket units, readily and at will, without disturbing the bracket units; and more specifically the invention includes a cradle unit comprising two longitudinal rails and a head and foot cross bar at the ends of the rails providing a rectangular base frame, and a plurality of bed-clothes supporting bow units slidably adjustably mounted on and supported by the rails with provision whereby the bows may be held in upright position when in use, or held folded down parallel to the base frame when the apparatus is removed from the bed; each bow unit comprising two carriages, one slidable on each rail, and a bow proper or cross-arm, the ends of which are mounted on the respective carriages.

Other objects of the invention will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends, the invention still further resides in the novel details of construction, combination and arrangement of parts, all of which will be first fully described in the following detailed description, and then be particularly pointed out in the appended claims, reference being had to the accompanying drawings, in which:

Figure 1 is a plan view of the invention, the bedstead being indicated in dotted lines.

Figure 2 is a cross section on the line 2—2 of Figure 1.

Figure 3 is a detail vertical section on approximately the line 3—3 of Figure 1, on a larger scale.

Figure 4 is a horizontal section on the line 4—4 of Figure 3.

Figure 5 is an end elevation of the parts shown in Figure 3 looking from right to left in Figure 3.

Figure 6 is a detail perspective view of a portion of the bracket units shown in Figure 3.

Figure 7 is a side elevation of one of the slidable carriages and the bow end attached thereto.

Figure 8 is a vertical section on the line 8—8 of Figure 7.

Figure 9 is a section on the line 9—9 of Figure 8.

Figure 10 is a perspective view of one of the latch members.

Figure 11 is an inverted plan view of the same.

Figure 12 is a plan view of the carriage frame.

Figure 13 is a perspective view of the latch-socket carrying top plate of a carriage.

Figure 14 is a detail perspective view of a portion of one of the clamps.

Figure 15 is a detail perspective view of a modification of the invention hereinafter referred to.

In the drawings, in which like numerals of reference indicate like parts in all the figures, 1 represents the corner posts of a bedstead, these posts being connected by the head and foot rails 2—2 respectively, and the side rails 3. 4 designates cross bars, preferably of angle-iron cross section, which extend parallel to the head and foot of the bed. Each cross bar 4 at its ends is provided with a return bend 5, a vertical extension 6, and a further return bend 7, the latter being spaced from the top of the bar 4 and having its sides bent up as at 8, thereby forming a guide for the latch slide block 14.

9 is an angle piece apertured to permit passage of the latch stem 17, the angle piece 9 being secured by one of the rivets 10 that fasten the cross bar 4 to the leg 11.

The legs 11 are faced with felt or rubber 12 and are provided with rubber faced feet 13 to rest on the side rails 3 of the bedstead.

Each slide block 14 has a latch-pin 15 that projects through a hole 16 in the downward extension 6 and each latch stem 17 has a reduced threaded portion 18 onto which is screwed a cap 19 that anchors the flexible cable or chain 21 to the latch by means of an enlargement 20.

22 designates slots in the cross bars 4 through which the latching tongues 41, hereinafter again referred to, pass, the tongues 41 having holes 42 through which the latch-pins 15 may pass.

The cross bars 4 are provided with suitably located rivet holes 23 through which pass the rivets 24 which secure the clamp ears 25 to the bars. The clamps by which the bars 4 are secured to the bed-posts 1 each comprises sections 26 and 28, provided with a suitable lining 36 of rubber or felt. The clamp section 26 has an ear 27 to which is riveted at 34 the eye 33 of clamp bolt 32. The other clamp section 28 has an ear 29 counterbored at 30 and slotted at 31 to permit the bolt 32 to be brought into and removed from clamping position and to receive the projecting flange 35× of wing nut 35, which flange enters the recessed or countersunk portion 30 to prevent the bolt 32 from being lifted through the slot 31 when the parts are in the clamped-together or holding position.

The parts 4 to 36, inclusive, constitute what I call the bracket units, there being two of such units, one at the head of the bed and the other at the foot.

The base frame of the cradle consists of two cross bars 37 united by longitudinal rails 46, the latter extending parallel to the bed rails 3 on the outside of the bed. Each cross bar 37 overlies the cross bar 4 and includes vertical portions 38 and horizontal portions 39 extending laterally from the vertical portions 38, the horizontal portions 39 being thickened by return bends of the bar 37. The extensions 39 of the bar 37 are slit as at 40 and are bent downwardly to comprise tongues 41, hereinbefore referred to. Each extension 39 also has an upright wing 43 that is provided with upper ears 44 and a lower ear 45, which ears engage with the longitudinal side rails 46. The rails 46 may be secured to the ears by welding, or in any other suitable way, whereby the parts 37, 38, 39, 43 and 46 constitute a rectangular base frame of the cradle proper.

If the rail 46 is made of sheet metal, rather than rolled or cast metal, the sides are bent over and under, as at 47, to provide between them a roller guide-way or track 48. The sides of the bars 46 are cut to provide racks 49 to cooperate with the latches 65, hereinafter again referred to.

Each cross bow consists of a tubular bar 91, the ends of which are mounted on sliding carriages each of which comprises a frame 50 having side walls 51 and front and back walls 52. One of the side walls is provided with countersunk portions 53 and 56 for the heads of the wheel shaft 55 and roller shafts 58, the other side wall being apertured at 54 and 57 respectively to provide passages for the shafts 55 and 58, the ends of which may be upset or riveted over, as indicated in Figure 8.

Mounted on the shaft 55 is a wheel 62 having hubs 63 and provided with a bearing bushing 64, preferably of self-lubricating noiseless material. Washers 61 are interposed between the ends of the hubs 63 and the walls 51.

On the shafts 58 are carried rollers 59 which are also provided with noiseless and preferably self-lubricating bushings 60, there being washers 61 interposed between the ends of rollers 59 and the walls 51.

Each cradle carriage also includes a latch member consisting of a U-shaped body 65 having teeth 66 to mesh with the rack 49 and hold the carriage locked to the rail 46. The latch member 65 has slots 67 to receive the ends of the hubs 63 and permit the latch to be raised and lowered. Each latch 65 is also provided with a hole 68 having a countersunk portion to receive the latch-lifting rod 70 and its head 69, the rod 70 having a reduced threaded portion 104 to receive the cap 103 by which the flexible cable or chain 102 is attached to the latch-lifting rod 70. A spring 71 is interposed between the latch 65 and the head of the frame 50, which spring continuously tends to force the latch 65 into latching engagement with the rail 46. The top of the frame 50 has a hole 72 for the passage of the rod 70. It also has a longitudinal slot 73 and is provided with one-half trunnion bearings 74 to receive the trunnions 89 of the trunnion members 87.

78 and 81 designate side cap plates which are provided, respectively, with lugs 79 and 82 to enter slots 75 in the top of the frame 50. The plates 78 and 81 are spaced apart and are provided with one-half trunnion bearings 80 and 83 respectively to cooperate with the one-half trunnion bearings 74. The frame 50 is provided with longitudinal pin-holes 76 in which lie the pins 77 that also pass through corresponding holes in the lugs 79 and 82 to hold the cap plates 78 and 81 in place. The ends of the pins 77 may be upset or riveted over, as indicated in dotted lines in Fig. 7. The cap plate 81 carries a latch-socket post 84 that is provided with a latch socket 85 and a stop lug 86, the latter being provided to limit the swing of the bow member proper to a vertical position (see Figure 7). The bow member proper 91 has its ends threaded to receive the threaded portions 90 of the trunnion members 87, the latter being tubular and each having a cross slot 88 to clear the latch rod 70 when the bow is swung on the trunnions 89 from a vertical to a horizontal position, and vice versa (see Figure 7).

The bow member 91 carries a casing 92 to hold the latch-socket 93 in which the guide collar 95 of the latch-pin 94 moves, the latch-socket 93 being apertured to permit the upper end of the latch-pin 94 to project through, there being a spring 97 to engage the collar 95 for forcing the latch pin outwardly (downwardly) in Figure 8. The upper end of the latch-pin 94 is suitably secured to a latch-lifting rod 98 which passes through a guide 99 secured to the bow tube 91 (see Figures 7 and 8). The upper end of the latch-lifting rod 98 is threaded and carries a cap 100 by which the flexible cable or chain 101 is secured to the rod 98. The flexible cable or chain 101 may pass into the tube 91 through suitable openings. The cables 101 from each latch-lifting rod 98 of a bow are joined together and pass through a suitably located common aperture, say, in the middle of the bow (see Figure 2) whereby on pulling the end of the combined cable or chain 101 both latches 94 of the bow may be released simultaneously. Also, the flexible cables or chains 102 from the latch-lifting rod 70 of a bow unit are connected together and pass through a suitable common opening in the tube 91 whereby upon pulling the combined end of the cables or chains 102 both latches 65 may

be simultaneously released. A socket 109 is provided in the cradle carriage at right angles to the axis of the socket 85, to receive the latch pin 94 when the arch tube is swung down to the dotted line position of Figure 7, and thus latch the arc tube in its position paralleling the rails 46.

In using my apparatus the bracket units are first secured to the head and foot posts 1 of the bed where they remain fixed so long as the apparatus is in use on the bed. The parts constituting the cradle proper are assembled as a unit and lifted as a unit into position on the brackets with the lugs 41 passed through the slots 22 and secured by the latch-pins 15. The bow units are then adjusted to the desired positions along the rails 46 and held there by their respective latches; the bed-covers are then placed over the bows, and the apparatus is in use. The bow units, it will be noted, may be adjusted toward the head and foot of the bed into any desired relation to each other to support the covers over the whole length of the bed or over such portion thereof as may be desired.

When it is desired to remove the cradle, this may be done by pulling the combined cable or chain 21 at, say, the head of the bed, lifting the bar 37 at the head of the bed and letting it rest on the latch-pins 15, then releasing the bar 37 at the foot of the bed in the same way and finally lifting off the cradle proper as a unit. When it is desired to store the cradle proper, the bows are swung down parallel to the rails 46, as indicated in dotted lines in Figure 1.

It should be understood that the accompanying drawings are only illustrative of the invention and are not intended to disclose particular proportions of parts, since the proportions of the parts will, in a measure, depend upon the materials used in their construction. Where sheet metal is used, the reinforced portions may be produced by bending back parts of the sheet upon itself, as indicated for instance at 5 and 39 in Figure 3. If the parts are made of cast material, however, the required thickened portion will be of integral formation.

As shown in Figure 15, the legs can be made integral with the bar 4 if desired. In this figure those parts which correspond to like parts in the preceding figures bear the same reference number plus the index letter *a*, so a detailed description of this figure is believed to be unnecessary.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction, operation and advantages of the invention will be clear to those skilled in the art to which it appertains.

What I claim is:

1. An apparatus of the character described, comprising two bracket units having means for clamping to the bed-posts of a bed and a bed-cover support or cradle unit to rest on said bracket units, said units having means removably to secure the cradle unit to the bracket units, said cradle unit including a base frame having longitudinal rails, and at least one bow unit slidably adjustably mounted on said rails.

2. An apparatus of the character described, comprising two bracket units having means for clamping to the bed-posts of a bed and a bed-cover support or cradle unit to rest on said bracket units, said units having means removably to secure the cradle unit to the bracket units, said cradle unit including a base frame having longitudinal rails, and at least one bow unit slidably adjustably mounted on said rails, said bow unit comprising two carriages, one mounted on each rail, and a single bow proper whose ends are attached to said carriages.

3. An apparatus of the character described, comprising two bracket units having means for clamping to the bed-posts of a bed and a bed-cover support or cradle unit to rest on said bracket units, said units having means removably to secure the cradle unit to the bracket units, said cradle unit including a base frame having longitudinal rails, at least one bow unit slidably adjustably mounted on said rails, said bow unit comprising two carriages, one mounted on each rail, and a single bow proper whose ends are attached to said carriages by means of hinge joints having aligning axes lying transversely of the rails.

4. An apparatus of the character described, comprising two bracket units having means for clamping to the bed-posts of a bed and a bed-cover support or cradle unit to rest on said bracket units, said units having means removably to secure the cradle unit to the bracket units, said cradle unit including a base frame having longitudinal rails, at least one bow unit slidably adjustably mounted on said rails, said bow unit comprising two carriages, one mounted on each rail, a single bow proper whose ends are attached to said carriages by means of hinge joints having aligning axes lying transversely of the rails, and means for securing said bow proper to said carriages in a vertical position.

5. An apparatus of the character described, comprising two bracket units having means for clamping to the bed-posts of a bed and a bed-cover support or cradle unit to rest on said bracket units, said units having means removably to secure the cradle unit to the bracket units, said cradle unit including a base frame having longitudinal rails, at least one bow unit slidably adjustably mounted on said rails, said bow unit comprising two carriages, one mounted on each rail, a single bow proper whose ends are attached to said carriages by means of hinge joints having aligning axes lying transversely of the rails, and means for securing said bow proper to said carriages in either a vertical or a horizontal position.

6. In apparatus of the character described, a pair of cross bars, means securing said cross bars across a bed frame, one at the head and one at the foot of the bed, said cross bars projecting beyond the sides of the bed, and having slots in the projecting portions, latch devices adjacent said slots, means to actuate said latch devices, and a bed-cover supporting unit including a base frame having lugs to enter said slots and be secured to said cross bars by said latch devices.

7. In apparatus of the character described, a pair of cross bars, means securing said cross bars across a bed frame, one at the head and one at the foot of the bed, legs carried by said cross bars for resting on the bed frame, said cross bars projecting beyond the sides of the bed, and having slots in the projecting portions, latch devices adjacent said slots, means to actuate said latch devices, and a bed-cover supporting unit including a base frame having lugs entering said slots and secured to said cross bars by said latch devices.

8. In apparatus of the character described, a bracket unit comprising a cross bar, split clamps secured to said cross bar and adapted to grip around the corner posts of a bed, clamp bolts and nuts for securing said clamps in place, said

cross bar carrying apertured angle pieces and having slots adjacent said angle pieces, latch devices mounted on said cross bar between adjacent pairs of said angle pieces and having latch pins to enter the apertures in the said adjacent angle pieces, and a cradle unit detachably mounted on said cross bar and having apertured lugs passing through said slots and engaged by said latch pins to secure the cradle unit to the bracket unit.

9. In apparatus of the character described, a cradle unit comprising a base frame which includes parallel side rails connected adjacent the ends by cross bars, carriages mounted on said rails, cross-bows each mounted on opposite carriages, one carriage on each rail, each carriage comprising a frame, a wheel axle carried by said carriage frame, a wheel journalled on said axle within said carriage frame to run on the respective side rail, guide rollers beneath said side rail and carried by said carriage frame, a latch member in said carriage frame, said latch member having rack teeth, said side rails having racks to be engaged by said latch member, means to engage said latch member and the adjacent side rail, and means for releasing said latch member to free said carriage.

10. In apparatus of the character described, a cradle unit comprising a base frame which includes parallel side rails connected adjacent the ends by cross bars, carriages mounted on said rails, cross-bows each mounted on opposite carriages, one carriage on each rail, each carriage comprising a frame, a wheel axle carried by said carriage frame, a wheel journalled on said axle within said carriage frame to run on the respective side rail, guide rollers beneath said side rail and carried by said carriage frame, a latch member in said carriage frame straddling said wheel, said latch member having rack teeth, said side rails having racks to be engaged by said latch member, means continuously tending to engage said latch member and the adjacent side rail, and means for releasing said latch member to free said carriage.

11. In apparatus of the character described, a cradle unit comprising a base frame which includes parallel side rails connected adjacent the ends by cross bars, carriages mounted on said rails, cross-bows each mounted on opposite carriages, one carriage on each rail, each carriage comprising a frame, a wheel axle carried by said carriage frame, a wheel journalled on said axle within said carriage frame to run on the respective side rail, guide rollers beneath said side rail and carried by said carriage frame, a latch member in said carriage frame, said latch member having rack teeth, said side rails having racks to be engaged by said latch member, means to engage said latch member and the adjacent side rail, and means simultaneously to release the latch members of both carriages of a bow member in virtue of which the bow member and its carriages may be movable along said side rails at will.

12. In apparatus of the character described, a cradle unit comprising a base frame which includes parallel side rails connected adjacent the ends by cross bars, carriages mounted on said rails, cross-bows each mounted on opposite carriages, one carriage on each rail, each carriage comprising a frame, a wheel axle carried by said carriage frame, a wheel journalled on said axle within said carriage frame to run on the respective side rail, guide rollers beneath said side rail and carried by said carriage frame, a latch member in said carriage frame, said latch member having rack teeth, said side rails having racks to be engaged by said latch member, means to engage said latch member and the adjacent side rail, means for releasing said latch member to free said carriage, each carriage also including trunnion bearings, said cross-bows carrying trunnions fitted in said bearings, the axes of which bearings are in alignment transversely of the rails whereby the cross-bows can be swung from a vertical to a horizontal position, and latch devices for holding the cross-bows in their vertical positions.

13. In apparatus of the character described, a cradle unit comprising a base frame which includes parallel side rails connected adjacent the ends by cross bars, carriages mounted on said rails, cross-bows each mounted on opposite carriages, one carriage on each rail, each carriage comprising a frame, a wheel axle carried by said carriage frame, a wheel journalled on said axle within said carriage frame to run on the respective side rail, guide rollers beneath said side rail and carried by said carriage frame, a latch member in said carriage frame, said latch member having rack teeth, said side rails having racks to be engaged by said latch member, means to engage said latch member and the adjacent side rail, means simultaneously to release the latch members of both carriages of a bow member in virtue of which the bow member and its carriages may be movable along said side rails at will, each carriage also including trunnion bearings, said cross-bows carrying trunnions fitted in said bearings, the axes of which bearings are in alignment transversely of the rails whereby the cross-bows can be swung from a vertical to a horizontal position, and latch devices for holding the cross-bows in their vertical positions.

14. In apparatus of the character described, a cradle unit comprising a base frame which includes parallel side rails connected adjacent the ends by cross bars, carriages mounted on said rails, cross-bows each mounted on opposite carriages, one carriage on each rail, each carriage comprising a frame, a wheel axle carried by said carriage frame, a wheel journalled on said axle within said carriage frame to run on the respective side rail, guide rollers beneath said side rail and carried by said carriage frame, a latch member in said carriage frame, said latch member having rack teeth, said side rails having racks to be engaged by said latch member, means to engage said latch member and the adjacent side rail, means for releasing said latch member to free said carriage, each carriage also including trunnion bearings, said cross-bows carrying trunnions fitted in said bearings, the axes of which bearings are in alignment transversely of the rails whereby the cross-bows can be swung from a vertical to a horizontal position, and latch devices carried by said cross-bows and engaging said carriage for holding the cross-bows in either their vertical positions or their horizontal positions.

15. In apparatus of the character described, a cradle unit comprising a base frame which includes parallel side rails connected adjacent the ends by cross bars, carriages mounted on said rails, cross-bows each mounted on opposite carriages, one carriage on each rail, each carriage comprising a frame, a wheel axle carried by said carriage frame, a wheel journalled on said axle within said carriage frame to run on the respec-

tive side rail, guide rollers beneath said side rail and carried by said carriage frame, a latch member in said carriage frame, said latch member having rack teeth, said side rails having racks to be engaged by said latch member, means to engage said latch member and the adjacent side rail, means for releasing said latch member to free said carriage, each carriage also including trunnion bearings, said cross-bows carrying trunnions fitted in said bearings, the axes of which bearings are in alignment transversely of the rails whereby the cross-bows can be swung from a vertical to a horizontal position, latch devices carried by said cross-bows and engaging said carriage for holding the cross-bows in either their vertical positions or their horizontal positions, and means simultaneously to release the latch devices of said cross-bows in virtue of which the cross-bows may be free to be swung on their trunnions from one position to the other.

16. In apparatus of the character described, a cradle unit comprising a base frame with parallel side rails, a set of bow units each including two carriages one slidable on each rail, on which carriages a bow proper is mounted, said carriages each comprising a frame having a top, side and end walls and a portion to straddle a rail, a wheel mounted in said frame to ride on the rail, guide means carried by said carriage beneath the rail, said rails having rack portions, a latch in each carriage frame and comprising a U-shaped member to straddle said wheel and having teeth, means continuously tending to move said latch to cause said teeth to engage with said rack portions, a latch lifting rod carried by the latch and passing through a hole in the top of said carriage frame, said carriage frame having a recess, said bow proper having its ends provided with trunnions mounted in the carriage recess and being tubular, a latch releasing flexible member passing through said tubular bow proper and connected to the latch lifting rods of each carriage of a bow unit for releasing the latches to permit the carriages to be moved along said rails, and means to hold said bow proper against pivoting on its trunnions when the apparatus is in use.

17. In apparatus of the character described, a cradle unit comprising a base frame with parallel side rails, a set of bow units each including two carriages one slidable on each rail, on which carriages a bow proper is mounted, said carriages each comprising a frame having a top, side and end walls and a portion to straddle a rail, a wheel mounted in said frame to ride on the rail, guide means carried by said carriage beneath the rail, said rails having rack portions, a latch in each carriage frame and comprising a U-shaped member to straddle said wheel and having teeth, means continuously tending to move said latch to cause said teeth to engage with said rack portions, a latch lifting rod carried by the latch and passing through a hole in the top of said carriage frame, said carriage frame having a recess, said bow proper having its ends provided with trunnions mounted in the carriage recess and being tubular, a latch releasing flexible member passing through said tubular bow proper and connected to the latch lifting rods of each carriage of a bow unit for releasing the latches to permit the carriages to be moved along said rails, and other latch devices carried by the bow proper and cooperating with members on the carriages for holding the bow proper in its operative position during use.

18. In apparatus of the character described, a cradle unit comprising a base frame with parallel side rails, a set of bow units each including two carriages one slidable on each rail, on which carriages a bow proper is mounted, said carriages each comprising a frame having a top, side and end walls and a portion to straddle a rail, a wheel mounted in said frame to ride on the rail, guide means carried by said carriage beneath the rail, said rails having rack portions, a latch in each carriage frame and comprising a U-shaped member to straddle said wheel and having teeth, means continuously tending to move said latch to cause said teeth to engage with said rack portions, a latch lifting rod carried by the latch and passing through a hole in the top of said carriage frame, said carriage frame having a recess, said bow proper having its ends provided with trunnions mounted in the carriage recess and being tubular, a latch releasing flexible member passing through said tubular bow proper and connected to the latch lifting rods of each carriage of a bow unit for releasing the latches to permit the carriages to be moved along said rails, and other latch devices carried by the bow proper and cooperating with members on the carriages for holding the bow proper in its operative position during use and including means for holding the bow proper folded down parallel to said rails when the apparatus is not in use on a bed.

19. In apparatus of the character described, a cradle unit comprising a base frame with parallel side rails, a set of bow units each including two carriages one slidable on each rail, on which carriages a bow proper is mounted, said carriages each comprising a frame having a top, side and end walls and a portion to straddle a rail, a wheel mounted in said frame to ride on the rail, guide means carried by said carriage beneath the rail, said rails having rack portions, a latch in each carriage frame and comprising a U-shaped member to straddle said wheel and having teeth, means continuously tending to move said latch to cause said teeth to engage with said rack portions, a latch lifting rod carried by the latch and passing through a hole in the top of said carriage frame, said carriage frame having a recess, said bow proper having its ends provided with trunnions mounted in the carriage recess and being tubular, a latch releasing flexible member passing through said tubular bow proper and connected to the latch lifting rods of each carriage of a bow unit for releasing the latches to permit the carriages to be moved along said rails, and other latch devices carried by the bow proper and cooperating with members on the carriages for holding the bow proper in its operative position during use, and means simultaneously to actuate said other latch devices of a bow proper to permit said bow proper to be folded down parallel to said rails when the apparatus is not in use on a bed.

20. In apparatus of the character described, a pair of cross bars, one for location at the foot of a bed having corner posts and side rails and the other for location at the head of the bed, legs secured to said cross bars to rest on the side rails of the bed, clamps carried by said cross bars for securing them to the corner posts of the bed, and a bed-cover supporting unit comprising a frame to rest on said cross bars and including longitudinal rails, and bow members slidably supported on said rails, said frame and said cross bars having inter-engaging parts and devices co-

operating with said parts detachably to secure said frame to said cross bars.

21. An apparatus of the character described, comprising two bracket units having means for clamping to the bed-posts of a bed, one unit being arranged to lie across a bed at the head and the other unit to lie across the bed at the foot, both units arranged to lie between the head and foot of a bed, a cradle unit including bed-cover supporting cross-bows and side longitudinal bars, the latter resting on said bracket units alongside of the bed, and means detachably securing said cradle unit to said bracket units.

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