July 2, 1929. B. McINTOSH 1,719,614

TABLE FOR HOSPITAL BEDS

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Fig. 1.

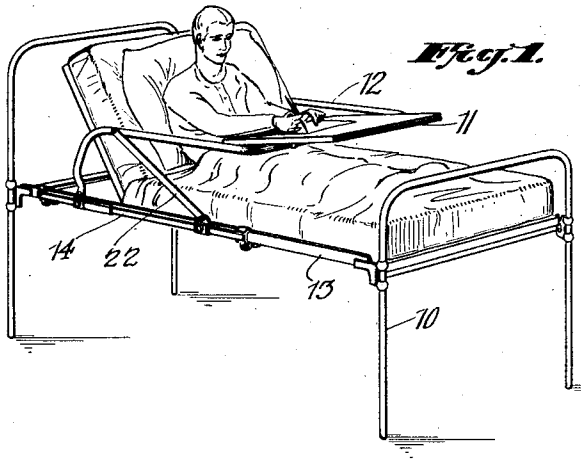


Fig. 3.

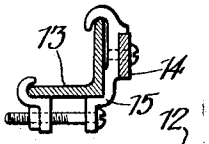
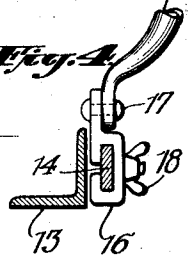


Fig. 4.



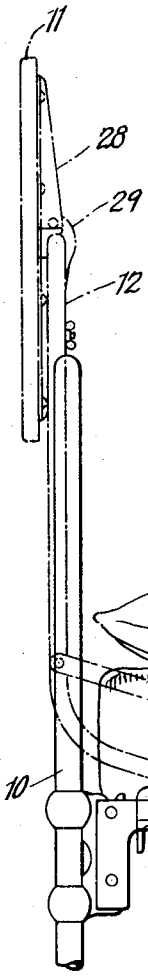


Fig. 2.

Fig. 5.

Fig. 7.

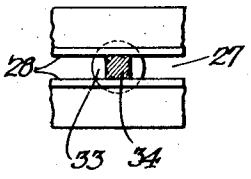
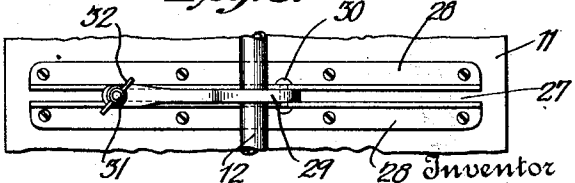


Fig. 6.



Inventor

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TABLE FOR HOSPITAL BEDS

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Fig. 8.

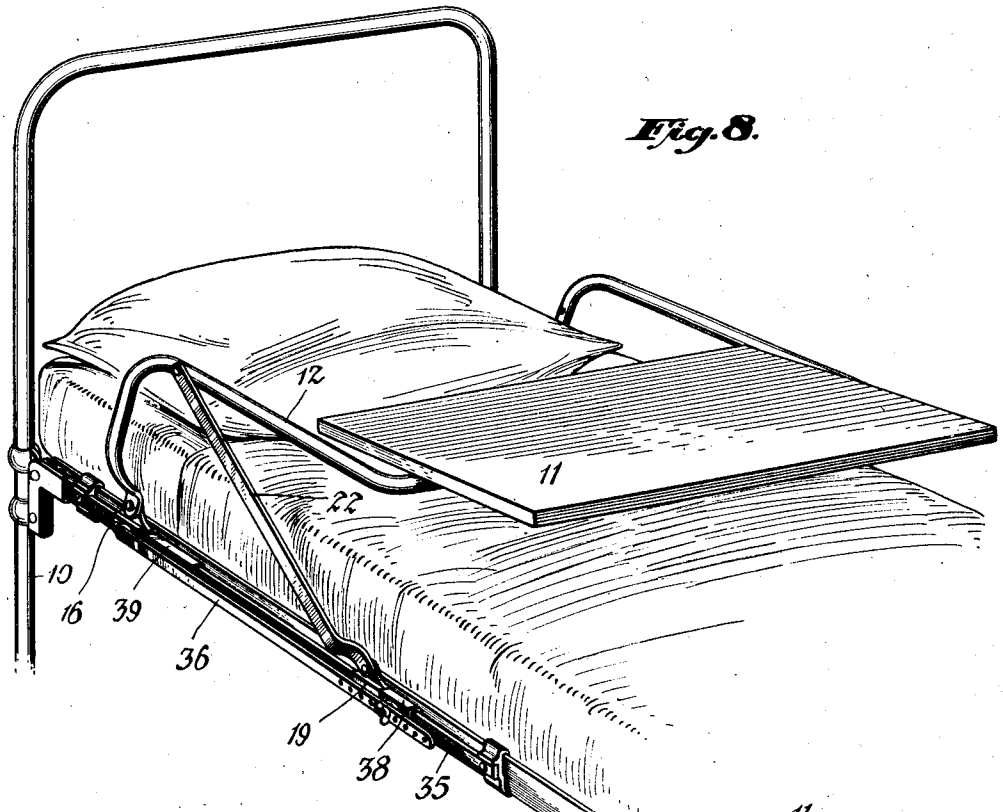


Fig. 9.

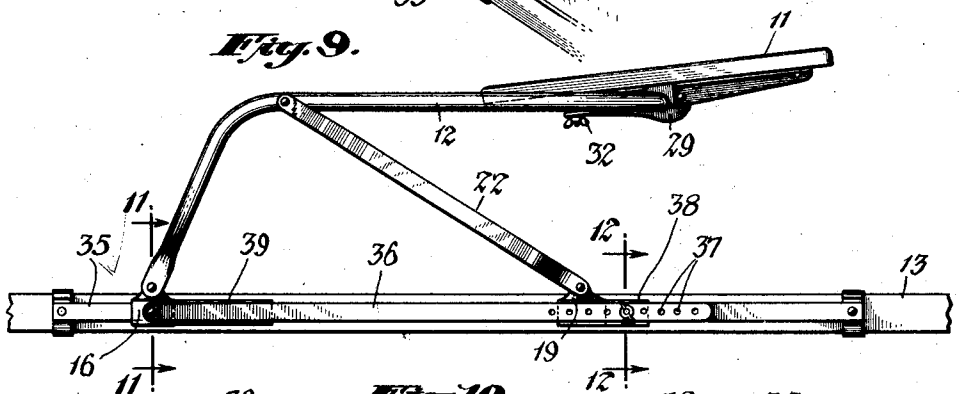


Fig. 10.

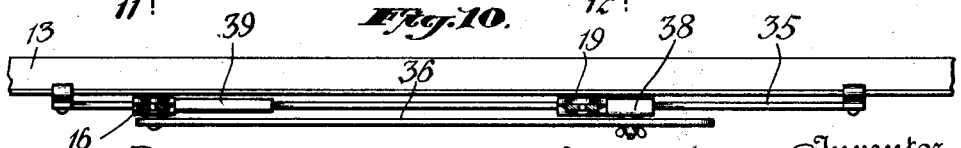


Fig. 11.

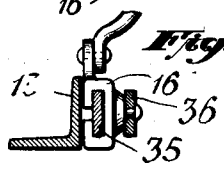
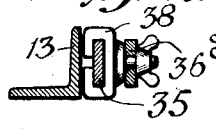


Fig. 12.



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Patented July 2, 1929. 1,719,614

UNITED STATES PATENT OFFICE.

BURTNETT McINTOSH, OF FLORAL PARK, NEW YORK, ASSIGNOR TO FRANK A. HALL & SONS, OF NEW YORK, N. Y.

TABLE FOR HOSPITAL BEDS.

Application filed February 18, 1928. Serial No. 255,215.

This invention relates to table supports especially to those for attachment to beds and has for its object to provide a table and support which can be attached to a bed, adjusted in the desired position and moved out of the way when not in use with ease and speed.

When a patient is convalescing and able to sit up in bed it is customary to use either a lap-board or a table supported from the floor for writing, holding a tray at meal time, etc. Anything resting on a patient's lap soon becomes uncomfortable. Around hospitals a common expedient is a table supported at one side from a heavy base extending under the bed and removable when not in use. Such a common construction takes up an unnecessary amount of space when not in use and is objectionable especially in modern hospitals where space is at a premium either in the wards or in private rooms, for the rooms are generally small and with no space available for storage of bulky articles. Under this invention these disadvantages are overcome and a comfortable table support provided which is capable of being folded up out of the way when not in use.

According to this invention a table is supported from the bed, is adjustable in height, longitudinal position, and angle of inclination, yet adapted to be swung to a substantially upright position over the head of the bed when not wanted.

Referring to the drawings,

Fig. 1 illustrates this invention applied to a hospital bed with the table in use.

Fig. 2 is a detail showing the manner of attaching a table to the sides of the bed.

Fig. 3 is a section on the line 3—3 of Fig. 2.

Fig. 4 is a section on the line 4—4 of Fig. 2.

Fig. 5 is a section on the line 5—5 of Fig. 2.

Fig. 6 shows a portion of the underside of the table.

Fig. 7 shows the non-rotatable screw for clamping the table on the underside.

Fig. 8 is a perspective showing a modified form of the invention.

Fig. 9 is a side elevation of the structure of Fig. 8.

Fig. 10 is a longitudinal section through the parts shown in Fig. 9.

Fig. 11 is a section on line 11—11 of Fig. 9.

Fig. 12 is a section on line 12—12 of Fig. 9.

The bed 10 illustrated is of the usual hospital type although it will be understood that this invention may be applied to beds of other types. The table 11 is carried by the supporting yoke 12. A guide member 14 extends longitudinally along each side member 13 of the bed and is secured thereto at each end by clamps 15 as shown in Fig. 3. The clamps 15 are preferably of a shape adapted to engage the side member 13 whether of iron or wood and whatever shape it be. Mounted on each guide member 14 are clamps 16 and 19 held in adjusted position by means of the tightening screws and wing nuts 18 and 20 respectively. These clamps 16 and 19 are preferably permanently secured on the guide members 14 in the embodiment illustrated and the guide members 14 may be mounted by means of the clamps 15, although it will be understood that clamps 16 and 19 may be made removable and may be shaped to fit the bed side members 13 so as to do away with the necessity of having the guide members 14 and clamps 15.

Each end of the yoke 12 is secured to the pivots 17 on the clamps 16. Pivotally secured to the clamp 19 at 21 is a brace 22 also pivoted to the yoke at 23. By adjusting the longitudinal position of the clamps 16 and 19 the table 11 and the yoke 12 may be moved longitudinally of the bed to suit the patient's needs. By adjusting the spacing between the clamps 16 and 19 the height of the table 11 is controlled. Preferably a brace 22 is used on each side of the table although it will be seen that if desired a brace on only one side may be made sufficiently rigid. When not in use the table may be moved to an out-of-the-way position by loosening the clamp 19 and sliding it toward clamp 16 with the result that the table is raised and swung over the head of the bed into the position shown by dotted lines in Fig. 2. To prevent the table and yoke from tilting too far beyond the bed a spacing member 24 is applied over the guide member 14 so as to prevent the clamp 19 being moved closer to clamp 16 than is shown in the drawing with the result that the spacer 24 and bracing member 22 contribute to hold the table and yoke in the upright position illustrated by the dotted lines.

The table 11 is secured on the cross bar of the yoke 12 by means of spaced guides or bearings 25 and 26 which in the embodiment illustrated comprise recessed angle members of short length. Intermediate these bearings is the means for clamping the table at the de-

sired inclination which comprises a pair of spaced angle irons 28 forming a channel 27 between them as shown in Fig. 6. A pin 30 passing between the sides of the channel pivotally secures the clamp 29 in position. Clamp 29 passes around under the yoke 12 and when tightened holds the yoke firmly against the guide bearings 25 and 26. For tightening the yoke 29 the screw 31 is provided which has a head 33 countersunk into the table while a square shank 34 non-rotatably secures the screw in the channel 27. The end portion of the screw engaging the wing nut 32 is threaded so that this nut may tighten the clamp 29 against the yoke 12 and maintain the table 11 in adjusted position.

With the table in out-of-the-way position over the head of the bed the clamp 19 need not be tightened inasmuch as gravity acting on the table and yoke is sufficient to maintain the table in position and the clamp 19 against the spacer 24, but to avoid accidental lowering of the table in case of jar it may be advisable to tighten the clamp 19 on at least one side of the bed.

In the form illustrated in Fig. 8 the yoke arm and table are similar to those already described, but the manner of mounting them on the bed is different. In this case the clamps 16 and 19 are slidably mounted on the slide rails 35, which are held in a position spaced laterally from the side members 13. A stop arm 36 is hinged to one of the clamps 16, the forward end of arm 36 being formed with a plurality of holes 37 for adjustable connection with a slide 38 mounted on the slide rail 35. A spacer 39 is also slidably mounted on rail 35 between the clamps 16 and 19.

This type of mounting provides for convenient adjustment with simplified control. Thus by changing the connection of the slide 38 with the holes 37 the height of the table above the bed may be varied. Once the slide 38 is secured to a certain hole of the series 37 the table is fixed at a certain height, but due to the sliding mounting of the clamps 16 and 19, and slide 38, the table can easily be moved backward and forward by the patient. The spacer 39 acts to limit the movement of the table to its out-of-the-way position after the arm 36 has been released from the slide 38.

I claim:

1. A table structure adapted for attachment to a bed, comprising a pivot located on each side of the bed, a yoke connecting said pivots and shaped to extend over the bed, a table clamped on said yoke, a guide member longitudinally extending adjacent each pivot, a clamp adjustably positioned on each guide member, a brace pivotally secured to each clamp and to said yoke between said pivot and the table, said clamp being movable along said guide to adjust the height of the table.

2. A table structure adapted for attachment to a bed, comprising a pivot located on each side of the bed, a yoke connecting said pivots and shaped to extend over the bed, a table clamped on said yoke, a guide member longitudinally extending adjacent each pivot, a clamp adjustably positioned on each guide member, a brace pivotally secured to each clamp and to said yoke between said pivot and the table, said clamp being movable along said guide to adjust the height of the table, and a spacer member on each guide member between the pivot and clamp to limit their minimum spacing.

3. A table structure adapted for attachment to a bed, comprising a pivot located on each side of the bed, a yoke connecting said pivots and shaped to extend over the bed, a table pivotally clamped on said yoke, a guide member longitudinally extending adjacent each pivot, a clamp adjustably positioned on each guide member, a brace pivotally secured to each clamp and to said yoke between said pivot and the table, said clamp being movable along said guide to adjust the height of the table, said yoke being of general U-shaped and each arm being L-shaped so that when the main body of the yoke is substantially upright the portion of the yoke secured to the pivots extends longitudinally of the bed.

4. A table structure adapted for attachment to a bed, comprising a pivot located on each side of the bed, a yoke connecting said pivots and shaped to extend over the bed, a table pivotally clamped on said yoke, a guide member longitudinally extending adjacent each pivot, a clamp adjustably positioned on each guide member, a brace pivotally secured to each clamp and to said yoke between said pivot and the table, said clamp being movable along said guide to adjust the height of the table, and means for clamping each guide member to a longitudinal side member of the bed.

5. A table structure adapted for attachment to a bed, comprising a pivot located on each side of the bed, a yoke connecting said pivots and shaped to extend over the bed, a table clamped on said yoke, a guide member longitudinally extending adjacent each pivot, a clamp adjustably positioned on each guide member, a brace pivotally secured to each clamp and to said yoke between said pivot and the table, said clamp being movable along said guide to adjust the height of the table, and a spacer on said guide member between the pivot and clamp and of a length to maintain the table and yoke substantially upright at one end of the bed when the clamp is moved toward said pivot.

6. A table structure adapted for attachment to a bed, comprising a yoke, means for securing said yoke to a bed adjacent one end to permit the yoke to be held substantially

upright or to extend longitudinally over and across the bed, a table on the portion of the yoke extending across the bed, means for tiltably clamping said table to said yoke, said last mentioned means comprising a channel beneath the table, a clamp pivoted in said channel, extending around the yoke, and mechanism also located in said channel for tightening the clamp about the yoke.

7. A table structure adapted for attachment to a bed, comprising a supporting bar therefor passing across the table beneath the same, spaced bearings for pivotally supporting said table on said bar, means for clamping the table in adjusted position comprising spaced angle irons forming a channel, a clamp pivotally secured in said channel, shaped around said bar, a screw non-rotatably held in said channel and a nut engaging said clamp and screw for tightening the clamp on the bar.

8. A table structure adapted for attachment to a bed, comprising a table, means for supporting the table from the bed comprising a guide member along each side of the bed, clamps securing each guide member to a side member of the bed, longitudinally adjustable clamps on each guide member, a yoke pivotally secured to one clamp and carrying the table, a brace pivotally secured to the other clamp on each guide member and connected to the yoke intermediate the table and the yoke pivot, and a spacer over said guide member between the two clamps for limiting swinging movement of the yoke over an end of the bed.

9. A table structure adapted for attachment to a bed, comprising a table, means for supporting the table from the bed comprising slide rails secured along the sides of the bed, a pair of clamps slidably mounted on the rails, a yoke hinged to the clamps, a second pair of clamps slidably mounted on the rails, brace arms hinged to the second pair of clamps and to the yoke, an adjusting arm attached to one of the first-named clamps and extending beyond one of the second-named clamps, and a slide on the rail and adapted to be adjustably secured to the end of the adjusting arm.

10. A table structure adapted for attachment to a bed, comprising a table, means for supporting the table from the bed comprising slide rails secured along the sides of the bed, a pair of clamps slidably mounted on the rails, a yoke hinged to the clamps, a second pair of clamps slidably mounted on the rails, brace arms hinged to the second pair of clamps and to the yoke, an adjusting arm attached to one of the first-named clamps and extending beyond one of the second-named clamps, a slide on the rail and adapted to be adjustably secured to the end of the adjusting arm, and a spacer on the slide rail between one of the first-named clamps and one of the second-named clamps.

In testimony whereof I affix my signature.

BURTNETT McINTOSH.