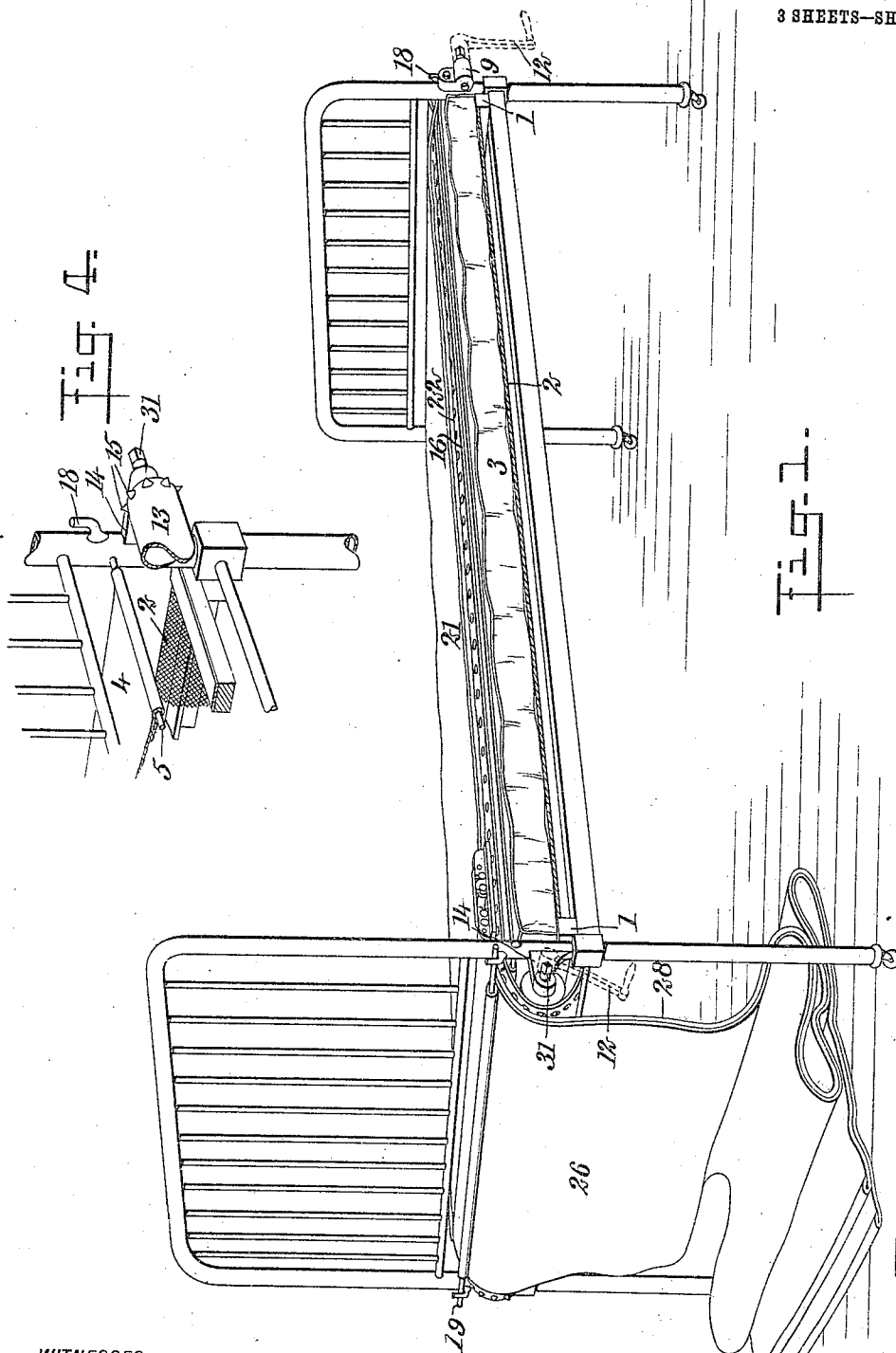


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ATTACHMENT FOR BEDS.
APPLICATION FILED FEB. 27, 1909.

Patented Dec. 7, 1909.
3 SHEETS—SHEET 1.



WITNESSES

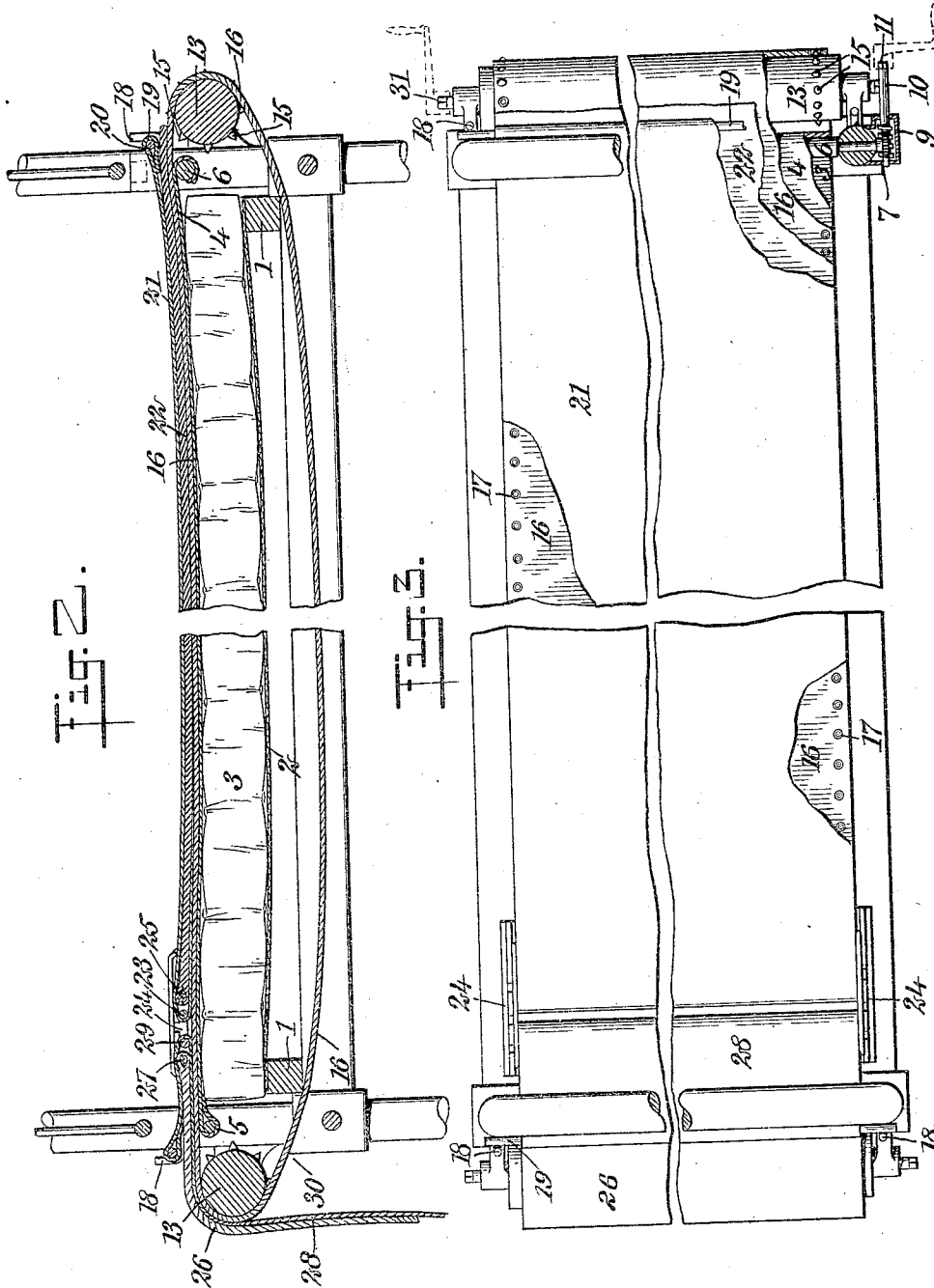
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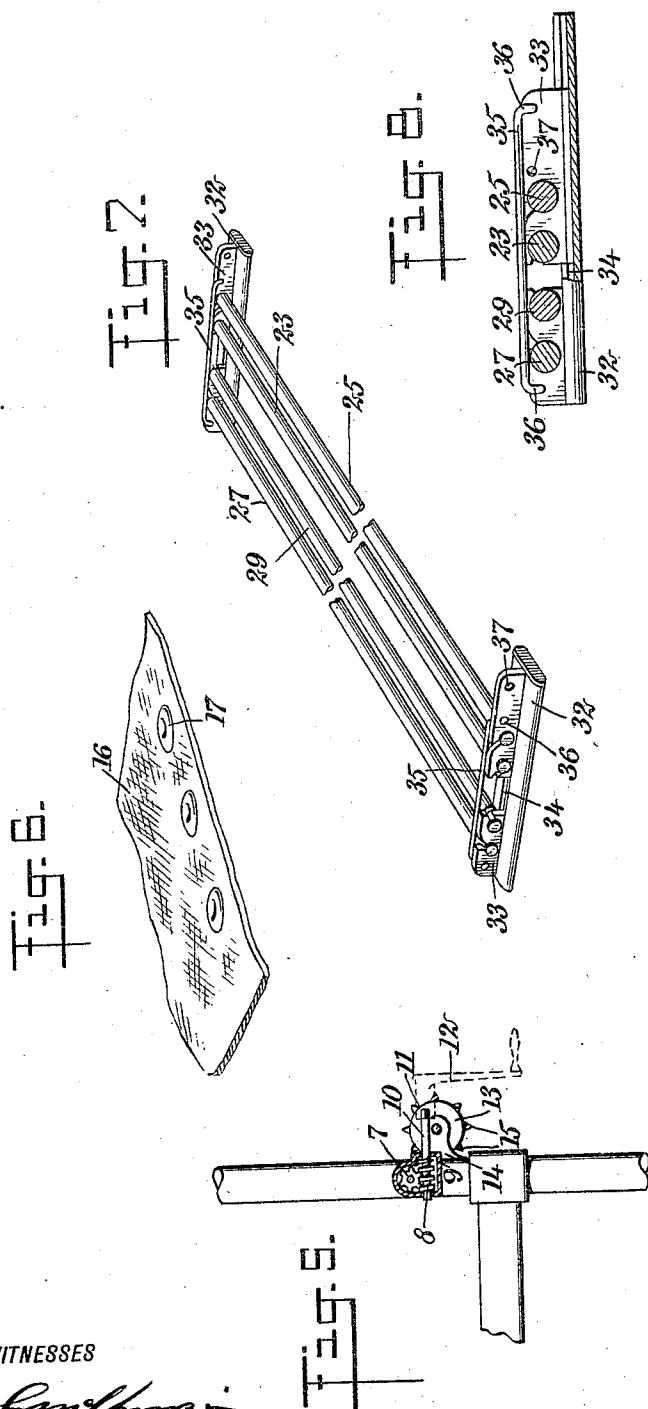
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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR BEDS.

942,606.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed February 27, 1909. Serial No. 480,326.

To all whom it may concern:

Be it known that I, PIERCE H. WILSON, a citizen of the United States, and a resident of Talent, in the county of Jackson and State of Oregon, have invented a new and Improved Attachment for Beds, of which the following is a full, clear, and exact description.

My invention relates to beds and it has for its object to provide a bed having a stretcher disposed over the mattress with means for drawing the stretcher taut, a continuous belt having a surface disposed over the stretcher, the continuous belt being disposed on drums at the head and foot of the bed respectively, there being means provided for rotating the drums.

Another object of the invention is to provide a traveling member in which rods are journaled, the rods being parallel and preferably four in number, the outer rods being disposed in loops in the ends of pads, there being sheets provided, which are disposed each around one of the inner rods, one of the terminals of one sheet being secured to the continuous belt one terminal of the other sheet being loose on the floor and the other terminals having loops therein in which rods are disposed respectively, the ends of the rods being disposed in brackets at the head and foot of the bed respectively.

Still other objects of the invention will appear in the following complete description.

In this specification I will describe the preferred form of my invention, but it will be understood that I do not limit myself thereto, as I consider myself entitled to all forms and embodiments of the invention which may be held to fall within the scope of the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, in which—

Figure 1 is a perspective view of the bed with my improvements attached; Fig. 2 is a longitudinal section of the bed shown in Fig. 1; Fig. 3 is a plan view of the bed, parts being broken away and in section; Fig. 4 is a fragmentary view of one of the ends of the bed, showing the manner of securing the stretcher at one end, and also one of the drums over which the continuous belt

is secured; Fig. 5 is a fragmentary view showing the means for loosening and tightening the stretcher; Fig. 6 is a fragmentary view of the belt showing the eyelets therein; Fig. 7 is a perspective view showing the traveling member; and Fig. 8 is a transverse sectional view of the traveling member shown in Fig. 7.

By referring to the drawings, it will be seen that the bed to which my attachment is secured, is of the ordinary form, and that it has transverse members 1 at the head and foot thereof respectively, to which is secured a spring 2, on which is disposed a mattress 3. Over the mattress 3 is disposed a stretcher 4, the stretcher 4 being secured around a rod 5, at one end of the bed and being secured to a shaft 6 at the other end of the bed, the shaft 6 being journaled in the foot of the bed and having a gear wheel 7 secured to one of its terminals, a worm 8 meshing with the gear wheel 7 for rotating the shaft 6, the worm 8 being journaled in a frame 9 disposed at the side of the foot of the bed. The shaft 10 of the worm 8 has one of its terminals 11 angular in shape to fit a crank 12, by which it may be rotated. At the head and foot of the bed respectively are journaled drums 13 in brackets 14; each of the drums 13, at each end having sprockets 15, disposed around its periphery, and on these drums is disposed a continuous belt 16, having eyelets 17 near each of its sides, the eyelets 17 being spaced apart for engaging the sprockets 15 on the drums 13. At the sides of the end of the bed are secured brackets 18, in which may be disposed rods 19, the rods being disposed in loops 20, at the terminals of the sheet 21. The sheet 21 is disposed over a pad 22, which is itself disposed on the continuous belt 16, a rod 19 being disposed in the loop 20 of the sheet 21, the rods being disposed in the brackets 18, as has been stated. The sheet 21 extends from the opposite end of the bed over one of the inner rods 23 of a traveling member 24, the sheet then doubling on itself under the pad 22 and being secured to the continuous belt 16 by hooks and eyes, pins, or other means. The pad 22 has a loop in its terminal in which is disposed one of the outer rods 25 of the traveling member 24. A second pad 26 is used, which also has a loop disposed in a second outer rod 27 of the traveling member 24, a sheet 28 being disposed around a sec-

ond inner rod 29 of the traveling member 24, one of the terminals 30 of the sheet 28 being secured by inserting the rod 19 at the head of the bed in the loop of the sheet and placing the rod 19 in the brackets 18. The drums 13 are rotated by means of the crank 12 which is adapted to fit an angular terminal 31 of one of the studs of each of the drums 13 which are journaled in the brackets 14. The traveling member 24 consists of side frame members 32, each of which has two upwardly extending flanges 33 which travel in grooves 34 in the side frame members 32, the flanges 33 having enlarged undersides to prevent their becoming disengaged from the side frame members 32. In the flanges 33 are disposed the terminals of the rods 23, 25, 27 and 29, each pair of flanges 33 being held at the desired distance apart by means of retainers 35, which have bent terminals 36 which may be disposed in orifices 37 in the flanges 33 so that when the terminals 36 are thus disposed and are slightly flattened, each pair of flanges 33 will be held spaced apart at the desired distance.

In using my invention, when it is desired to dress the bed, that is to remove the soiled sheet and substitute a clean one, the nurse inserts a rod 19 through the loop of the soiled sheet at the foot of the bed and disposes the end of the rod 19 in the brackets 18. The nurse then places the traveling member at the head of the bed, inserts the rod 25 of the traveling member 24 through the loop of the soiled pad and replaces the said rod 25 in position in the traveling member. Then the nurse places the loose end of the soiled sheet over the rod 23 of the traveling member 24, and attaches the end by means of hooks, pins or other fasteners to the continuous belt 16. This provides for the soiled sheet and the pad. The nurse then places a rod 19 through a loop at one end of a clean sheet and disposes the rod 19 in the brackets 18 at the head of the bed. The sheet is then thrown over the rod 29 of the traveling member 24, the body of the sheet being permitted to return to the head of the bed, under the end of the traveling member and remain loosely disposed on the floor. The rod 27 is then inserted through a loop in a clean pad 26, the loose end of the pad being permitted to lie on the floor on top of the loose end of the clean sheet. The nurse then tightens the stretcher 4 and when it is drawn taut the nurse, by means of the crank, rotates the drum 13 at the foot of the bed thereby causing the continuous belt 16 to travel toward the foot of the bed, the continuous belt 16 carrying one end of the soiled sheet, inasmuch as one of its terminals is secured thereto. By this means the soiled sheet is removed from the bed and the soiled pad is also withdrawn at the same time a

clean sheet is being disposed the length of the bed, without disturbance to the patient. The clean sheet is carried along by the traveling member 14, the loose terminal of the sheet paying out from below as the traveling member 24 moves from the head to the foot of the bed.

It will be seen that by using my invention a patient may be moved to an upright position at the upper end of the bed. This is done by removing the fasteners from the sheet, tightening the stretch belt and operating the continuous belt so that it moves across the top of the bed toward the head. This will carry the patient to the head of the bed gradually, so that pillows may be disposed under the patient until the desired position is obtained.

It will also be understood that with my invention it is possible to remove sheets from under the patient without removing any of the covering. By removing the top of the foot of the bed and by operating the continuous belt the patient may be carried to the foot of the bed to a sitting up position, with his feet on the floor at the foot of the bed, or if desired the patient may be removed from the bed to another support by this means. Should it be desired to carry the patient from the bed on a stretcher, the stretcher may be arranged in the same way as the clean pad, and by its means when the continuous belt is operated it will be found that the patient is disposed on the stretcher.

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

1. In an attachment for beds, in combination with a bed, drums oppositely disposed near the respective edges of the bed, sprockets disposed around their peripheries, a continuous belt disposed on the drums, which has eyelets spaced apart for engaging the sprockets, a stretcher disposed under the continuous belt, and means for tightening the stretcher.

2. In an attachment for beds, in combination with a bed, drums oppositely disposed near the respective edges of the bed, sprockets disposed around their peripheries, a continuous belt disposed on the drums, which has eyelets spaced apart for engaging the sprockets, a stretcher disposed under the continuous belt, means for tightening the stretcher, a mattress disposed under the stretcher, and means for rotating the drums.

3. In an attachment for beds, a traveling member, a pad which is detachably secured to the traveling member, and a sheet which is disposed around the end of the pad to travel therewith.

4. In an attachment for beds, a belt disposed substantially from one end of the bed to the other, means for moving the belt relatively to the bed, a traveling member, a

pad which is detachably secured thereto, and a sheet which is disposed around the end of the pad to be fastened to the belt, the other end of the sheet being secured to the bed so that the traveling member, the pad and the sheet will move with the belt when it is operated.

5. In an attachment for beds, a belt which is adapted to be moved relatively to the bed, disposed substantially from one end of the bed to the other, a traveling member, two pads which are oppositely disposed and are detachably secured to the traveling member, and means for securing the pads and traveling member to move with the belt.

6. In an attachment for beds, two sheets, a traveling member and means adapted for drawing the traveling member across the bed, the traveling member being provided with rods around which the sheets are disposed respectively.

7. In an attachment for beds, two sheets, a traveling means to which the sheets are attached, and means adapted for drawing the traveling means across the bed.

8. In an attachment for beds, a sheet which is folded, means for holding one terminal of the sheet substantially stationary, a traveling member adapted to engage the fold in the sheet, and means adapted for moving the traveling member across the bed.

9. In an attachment for beds, two sheets, means adapted to secure one terminal of each of the sheets to the bed, traveling means adapted to engage the sheets, and means adapted for drawing the traveling means across the bed.

10. In an attachment for beds, in combination with a bed, a pad and a sheet, the sheet being folded over one edge of the pad with its terminals disposed away from one of the edges of the bed, means adapted for holding the upper portion of the sheet relatively substantially stationary, and means for drawing the pad over the bed and simultaneously engaging the fold and by drawing thereon spreading the under portion of the sheet.

11. In an attachment for beds, two sheets, means adapted for securing one terminal of one of the sheets to the bed, traveling means having two rods, the sheets being disposed around the rods respectively, and means adapted for drawing the traveling means across the bed.

12. In an attachment for beds, in combination with a bed, two sheets, the terminals of each of which are disposed away from opposite edges of the bed respectively, means adapted for securing one terminal of each of the sheets to the bed, means which engage the folds of the sheets, and means which are adapted for traveling across the bed, the other terminal of one of the sheets being secured to the said means.

13. In an attachment for beds, in combination with a bed, two sheets, the terminals of each of which are disposed away from opposite edges of the bed respectively, means adapted for securing one terminal of each of the sheets to the bed, means which engage the folds of the sheets, means which are adapted for traveling across the bed, the other terminal of one of the sheets being secured to the said means, and a pad which is detachably secured to the first named means.

14. In an attachment for beds, in combination with a bed, drums journaled at opposite ends of the bed, sprockets on the drums, a continuous belt mounted on the drums, the belt having eyelets therein which are spaced apart to fit the sprockets, two sheets, the terminals of each of which are disposed away from opposite edges of the bed, one terminal of each of the sheets being secured to the bed, means for engaging the folds of the sheets, the other terminal of one of the sheets being secured to the continuous belt, and means for rotating the drums.

15. In an attachment for beds, in combination with a bed, drums journaled at opposite ends of the bed, sprockets on the drums, a continuous belt mounted on the drums, the belt having eyelets therein which are spaced apart to fit the sprockets, two sheets, the terminals of each of which are disposed away from opposite edges of the bed, means adapted for securing one terminal of each of the sheets to the bed, means for engaging the folds of the sheets, the other terminal of one of the sheets being secured to the continuous belt, means for rotating the drums, a stretcher disposed under the upper portion of the continuous belt, means for tightening the stretcher, and a mattress disposed under the stretcher.

16. In an attachment for beds, in combination with a bed, a mattress thereon, a stretcher disposed over the mattress, means for tightening the stretcher, two sheets, the terminals of each of which are disposed away from opposite edges of the bed, means for securing one terminal of each of the sheets to the bed, means for engaging the fold of the sheet, and means which are adapted for traveling across the bed, the other terminal of one of the sheets being secured to the said means.

17. In an attachment for beds, in combination with a bed, a belt adapted to be drawn across the bed, a traveling member with a plurality of rods secured thereto, two pads which are detachably secured to rods in the traveling member, and two sheets, means for securing each of the sheets near edges of the bed respectively, the sheets being disposed around the rods on the traveling member, the other terminal of one of the sheets being secured to the belt.

18. In an attachment for beds, in combination with a bed, two sheets, the terminals of each of which are disposed away from opposite edges of the bed respectively, means adapted for securing one terminal of each of the sheets to the bed, means which engage the folds of the sheets, and means which are adapted for traveling across the bed, the other terminal of one of the sheets being secured to the said means.

5 nation with a bed, a belt adapted to be drawn across the bed, a traveling member with a plurality of rods secured thereto, and two sheets, means adapted for securing the sheets near edges of the bed respectively, the sheets being disposed each around a rod of the traveling member, the other terminal of one of the sheets being secured to the belt.

10 19. In an attachment for beds, in combination with a bed, a belt adapted to be drawn across the bed, a traveling member with a plurality of rods secured thereto, two sheets, means adapted for securing the sheets near edges of the bed respectively, the sheets being disposed each around a rod of the traveling member, the other terminal of one of the sheets being secured to the belt, a stretcher disposed under the belt and means for tightening the stretcher.

20 20. In an attachment for beds, in combination with a bed, drums journaled near the ends of the bed respectively, a continuous belt disposed on the drums, there being means on the drums for engaging means on the belt, the means on the belt to be engaged by the said means, a stretcher disposed under

a portion of the belt, means for tightening the stretcher, a traveling member, two pads which are detachably secured to the traveling member, and two sheets, means adapted 30 for securing the terminal of each of the sheets to edges of the bed respectively, the sheets being folded around members on the traveling member one of the sheets being secured at its other terminal to the belt. 35

21. In an attachment for beds, in combination with a bed, a continuous belt mounted thereon, and means for drawing the continuous belt over the bed to assist in moving a patient to a sitting up position. 40

22. A bed, one end of which is removable, and a belt disposed on the bed to be drawn lengthwise thereover to carry the patient off the bed.

In testimony whereof I have signed my 45 name to this specification in the presence of two subscribing witnesses.

PIERCE H. WILSON.

Witnesses:

G. M. WILSON,
C. H. GILLETTE.