

Invalid Bedstead,

Patented Aug. 29, 1854.

N^o 11,605.



UNITED STATES PATENT OFFICE.

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BEDSTEAD FOR INVALIDS.

Secification of Letters Patent No. 11,605, dated August 29, 1854.

To all whom it may concern:

Be it known that I, J. T. FORBES, of Cobourg, Canada West, have invented certain Improvements in Invalid-Bedsteads, of which the following is a full, clear, and exact description, reference being had to the annexed drawings.

Figure 1 is a top view of the bedstead; Fig. 2, a bottom view. Fig. 3 is a side view and Fig. 4 an end view of it. Fig. 5 represents the canvas bottom.

Underneath the side rail *b, b*, there is a driving shaft *c, c*, to which is attached a crank *d*. This shaft carries near the middle of the rail two bevel wheels *e e* which gear into the bevel wheels *f* and *g*. The bevel wheel *f* is on a horizontal rock shaft *h, h* which is at right angles with the shaft *c, c*, the bevel wheel *g* is on a horizontal rock shaft *i* which is parallel with the shaft *h, h*. From the rock shaft *h, h*, extend two arms or supports *k, k*, toward the foot rail *l* of the bedstead, the ends of which arms are provided with little rollers *m, m*. From the rock shaft *i* extend two arms *n n* toward the head rail of the bedstead and their ends are linked to the lower part of supporting rods *p p* the upper ends of which are linked to the head board of the bed.

Two horizontal arms *G G* connected by a rod *s* pass through slots of the foot rail, turn around vertical pivots in said slots. By turning properly the knob *v* on the outer end of one of the arms *g* the inner ends of the arms *g g* which serve as supports to the foot board can be withdrawn from underneath the foot board. The head board *A* is linked in *w* to the cross rail *D*, so that it can be turned upward. The second board *B* is linked in *v* to the same cross rail *D* so that it also can be turned upward. To the lower edge of the board *B* is linked to *a* the third board *c* so that it can be turned downward. The fourth or foot board *E* is linked in *t* to the board *c* so that it can be turned upward. When the patient wants to have the head board raised the crank *d* is to be turned in the proper direction thereby turning the bevel wheels and the rock shafts. The rising of the arms *n n* and *p p* will elevate the head board *A* to any desired inclination. The arms *k k*, will have descended during the motion, but the foot board is still kept in its horizontal position by the supporting arms *g g*. By then withdrawing the arms *g g* the boards *C* and *E*

will be lowered and will be forced to rest against the arms *k, k*, and rollers *m m*. By having withdrawn the arms *g g* previously to setting the crank in motion the boards *c* and *E* will descend simultaneously with the rising of the head board. By this means the patient is brought into a sitting position. The lower end of a string *x* can be attached to the knob of the crank *d*. Its upper end is fastened to the end of an arm *y* extending from the rock shaft *z* which rock shaft is supported from the upper rails of the bedstead. A string *B'* is fastened to the end of another arm *L* which extends from the rock shaft *z*.

The lower end of the string *B'* is within reach of the patient's hand and by pulling it the arm *L* will be turned with it the rock shaft *z*, with this the arm *y*. Thereby the string *x* will be drawn upward and the crank *d* will be set in motion and operate the boards as above described. Toward the upper end of the bedposts there is placed the two shafts *G G* parallel with the smaller side of the bed; they carry the bevel-wheels *H, L*, which gear into the bevel wheels *I, K*. These wheels *I, K*, are on a shaft *F* which is parallel with the longer side of the bed, this shaft *F* can be revolved by means of a crank. Thereby the shafts *G G* will also be revolved. Four cords are fastened to and wound around the shafts *G G*. The other ends of these cords are attached to horizontal frame *j* and keep it suspended above the bed. When the patient is wanted to be removed the canvas *N* is to be placed on his side and he to be rolled on it. Then by properly revolving the shaft *F* and shafts *G G* the frame *j* is to be lowered until it rests on the bed the patient being within the frame. The loop holes *P* are then to be slipped over the pins *Q* and then the patient can be elevated together with the frame by means of again revolving the shafts *G G*, to allow airing, cleaning and making up the bed.

I claim—

In combination with the arrangement of the said shaft, gear and rock shafts, the rock shaft (*Z*) with its attachments (*a, x, d, y*) by which the invalid can move the head and foot boards himself.

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Witnesses:

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