

N. D. BISHOP.
MECHANISM FOR RAISING OR LOWERING BEDS.
APPLICATION FILED FEB. 19, 1913.

1,063,909.

Patented June 3, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

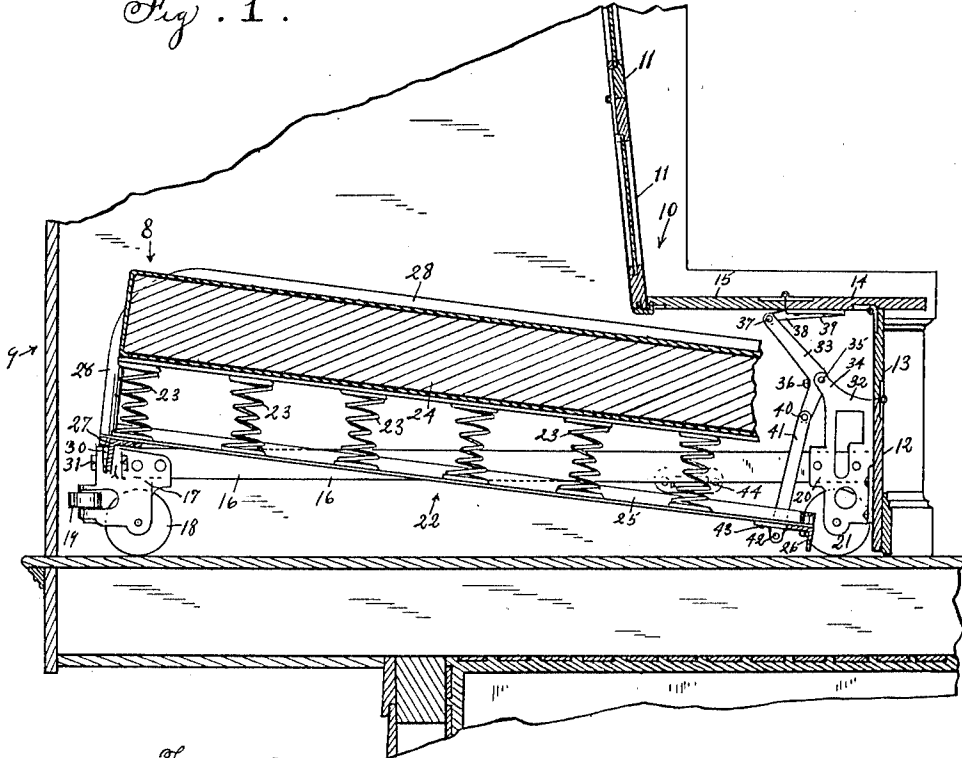
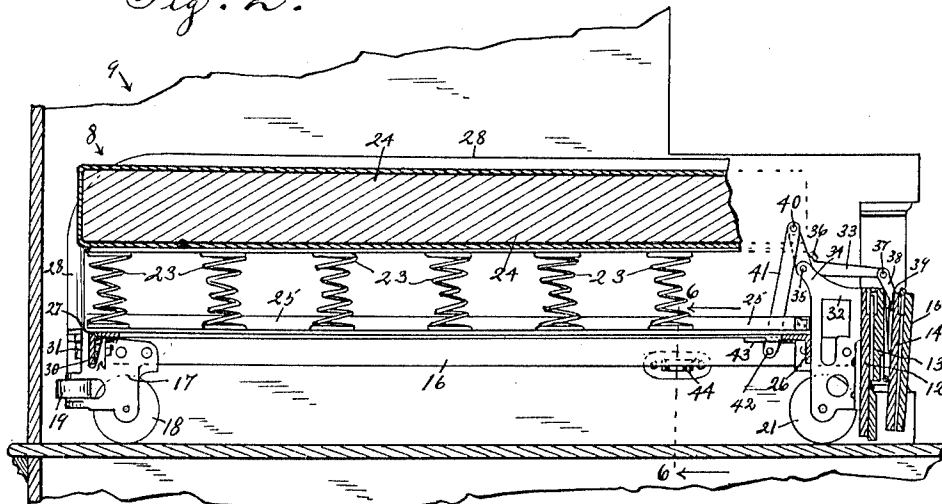


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

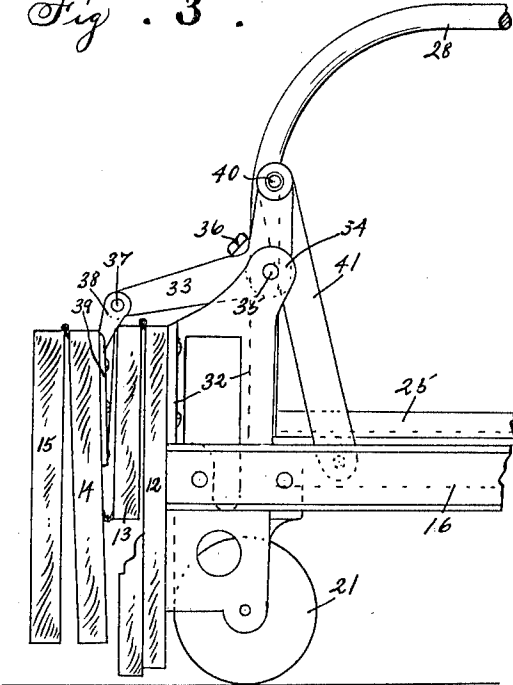


Fig. 4.

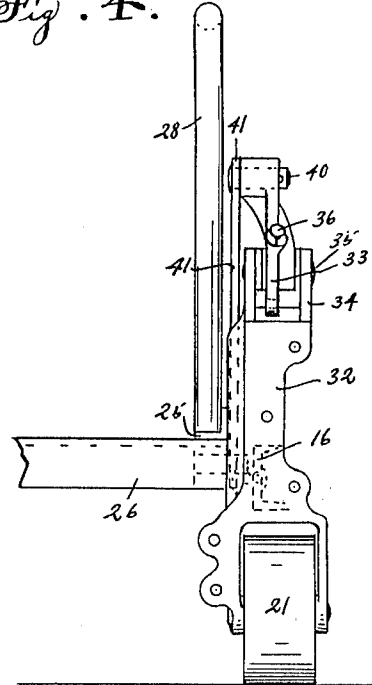


Fig. 5.

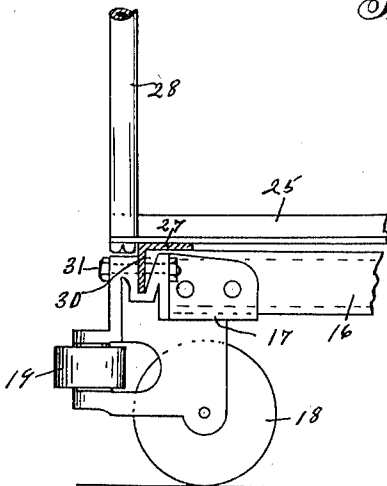


Fig. 6.

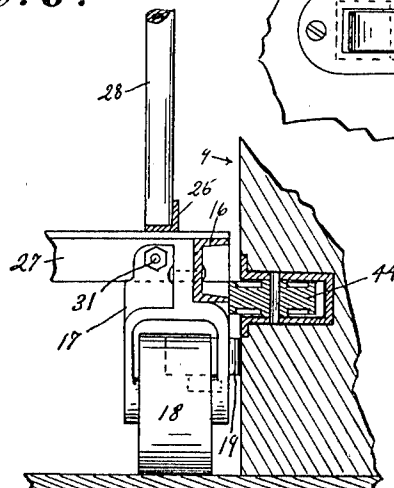
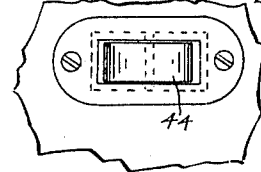


Fig. 7.



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UNITED STATES PATENT OFFICE.

NORMAN D. BISHOP, OF LOS ANGELES, CALIFORNIA.

MECHANISM FOR RAISING OR LOWERING BEDS.

1,063,909.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed February 19, 1913. Serial No. 749,545.

To all whom it may concern:

Be it known that I, NORMAN D. BISHOP, a citizen of the United States of America, residing at Los Angeles, in the county of Los Angeles, State of California, have invented a certain new and useful Mechanism for Raising or Lowering Beds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to mechanism for raising or lowering a bed—more particularly designed for use in connection with a bed having a combined seat and compartment such as more fully shown in my application filed July 22nd, 1912, Serial No. 710,982—and it may be said to consist in the provision of the novel and advantageous features and in the novel and improved construction, arrangement and combination of parts as will be apparent from the description and claims which follow hereinafter.

One object of the invention is to provide novel and improved mechanism operatively connected between the foldable seat and the bed support, adapted to raise or lower the bed and whereby the bed is counterbalanced by the seat when the latter is folded or unfolded in use.

Further objects of the invention are to provide mechanism of the nature specified which is simple in character, strong and durable, easy to install and operate, convenient to use, effective in action, permits the use of a seat of the usual height, and produces a compact arrangement of the parts.

Other objects and the advantages of the invention will be apparent to those skilled in the art from a consideration of the following description of the preferred form of construction embodying the invention, taken in connection with the accompanying drawings in which—

Figure 1 is a broken and sectional view of the construction embodying the invention, showing the bed support in lowered position; Fig. 2 is a broken and sectional view of the construction showing the seat folded and the bed support in raised position; Fig. 3 is an enlarged broken side elevational view showing the seat folded and the mechanism operatively connecting the seat with the bed support; Fig. 4 is an enlarged broken front elevational view of the parts shown in Fig.

3, with the foldable seat removed; Fig. 5 is an enlarged broken side elevational view of one of the rear caster brackets and parts mounted thereon; Fig. 6 is an enlarged partly broken and sectional view taken on the line 6—6 of Fig. 2, and Fig. 7 is an enlarged elevational view of one of the guide rollers mounted on the side wall of the compartment.

The bed 8 is adapted to be disposed within a suitable compartment indicated at 9 combined with a foldable seat indicated at 10. The seat 10 consists of the sections 11 hinged together and adapted to form the back portion of the seat, the sections 12 and 13 hinged together and adapted to form the front portion of the seat, and the sections 14 and 15 hinged together and adapted to form the horizontal portion of the seat extending between the front portion and the back portion and detachable therefrom.

The side bars 16, preferably of channel iron, have the rear end portion thereof suitably secured to brackets 17 on which are rotatively mounted floor casters 18 and also side or wall casters 19; the forward end of the side bars 16 being suitably secured to brackets 20 on which are rotatively mounted floor casters 21.

The support 22 for the springs 23 and mattress 24 preferably consists of the side angle irons 25 which have their front end portion suitably secured to the cross angle iron 26 and have their rear end portion suitably secured to cross angle iron 27. Head and foot frames 28 for the bed may be suitably secured to the support 22. The cross angle iron 27 has the downwardly projecting flange thereof fitted in angular notches formed in the upper part of the brackets 17; bolts 31 being passed through lugs on the brackets 17 and also freely through the flange to hold the angle iron 27 movably in position on the brackets 17.

The brackets 20 have an upward extension 32 thereon and are suitably secured to the section 12 of the front portion of the seat. An angular lever 33 has the elbow thereof disposed between ears 34 on the extension 32 and is mounted on a pivot 35 bearing in the ears 34. A screw 36 is provided on the lever 33 to set the lever 33 in position on the pivot 35. The lever 33 has one end thereof connected by pivot 37 to lug 38 provided on plate 39 suitably secured to the section 14 of the seat; the other end portion of the

lever 33 being connected by pivot 40 to the upper end of a link 41 which has on its lower end the pivot 42 fitted in a suitable bearing 43 on the side angle irons 25.

5 Rollers 44, more clearly shown in Figs. 6 and 7, may be suitably mounted in the forward end portion of the side walls of the compartment 9 and adapted to contact with and guide the side bars 16.

10 From the foregoing and by referring to the drawings, it will be understood that when the sections 12, 13, 14, and 15 of the seat are unfolded, see Fig. 1, the operative connections between the seat and the bed support move the forward end portion of the bed support to lowered position. When the sections 15, 14 and 13 are folded together against the section 12, see Fig. 2, the forward end portion of the bed support is moved to raised position. The bed is easily and quickly raised or lowered when the sections of the seat are folded or unfolded, for the reason that the operative connections between the seat and bed support are such that the seat is adapted to counterbalance the bed.

It will be apparent that the operative connections between the seat and the bed support may be arranged on either or both sides of the bed support.

While one form of construction embodying the invention has been particularly illustrated and described, there are many changes and modifications thereof that will be apparent to those skilled in the art, wherefore the right is reserved to all such changes and modifications as do not depart from the spirit and scope of the invention as defined in the appended claims.

40 I claim:

1. The combination of a bed support, a foldable seat including sections hinged together, a pivotally mounted lever connected with one of the sections, and a link pivotally connected with the lever and with the bed support, substantially as and for the purpose set forth.

2. The combination of side bars, caster brackets on the rear end portion of the side bars, a bed support resting movably on said caster brackets, a foldable seat including sections hinged together, a mounted lever pivotally connected with one of the sections, and a link connected with the lever and with the bed support, substantially as and for the purpose set forth.

3. The combination of a foldable seat in-

cluding a front section and hinged sections connected with the front section, plates on one of the hinged sections, side bars, caster brackets on the front end portion of the side bars, said caster brackets secured to said front section, extensions on the caster brackets, levers pivotally mounted on said extensions and pivotally connected with said plates, a bed support, and links pivotally connected with the levers and with the bed support, substantially as and for the purpose set forth.

4. The combination of side bars, caster brackets on the rear end portion of the side bars, a bed support resting movably on said caster brackets, caster brackets on the front end portion of the side bars, a foldable seat including sections hinged together, plates on one of the sections, levers pivotally mounted on the last mentioned caster brackets and pivotally connected with said plates, and links pivotally connected with the levers and with the bed support, substantially as and for the purpose set forth.

5. The combination of side bars, caster brackets on the rear end portion of the side bars, a bed support resting movably on said caster brackets, caster brackets on the front end portion of the side bars, extensions on the last mentioned caster brackets, a foldable seat including a front section secured to the last mentioned caster brackets and hinged sections connected with the front section, plates on one of said hinged sections, angular levers pivotally mounted on said extensions and pivotally connected with said plates, and links pivotally connected with said levers and with said bed support, substantially as and for the purpose set forth.

6. Mechanism of the class specified, comprising a movable bed support, a foldable seat consisting of a front section and hinged sections connected with the front section, brackets carried by the front section, and means mounted on said brackets operatively connecting the bed support with the foldable seat, for the purpose set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses at Los Angeles, county of Los Angeles, State of California, this 8th day of February, A. D. 1913.

NORMAN D. BISHOP.

Witnesses:

FRED A. MANSFIELD,
ALEX. H. LIDDERS.