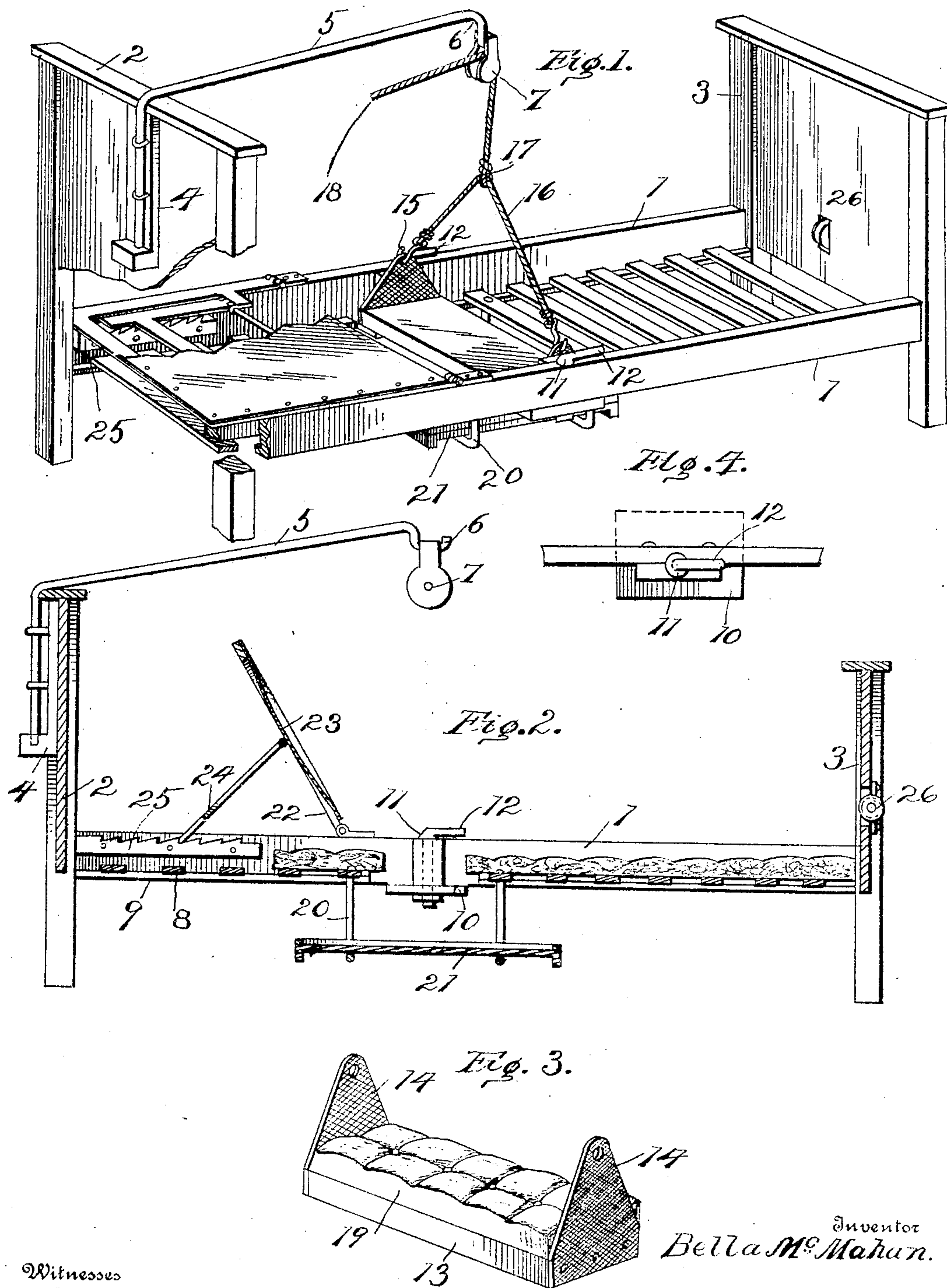


No. 803,619.

PATENTED NOV. 7, 1905.

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INVALID BED.

APPLICATION FILED MAY 1, 1905.



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# UNITED STATES PATENT OFFICE.

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## INVALID-BED.

No. 803,619.

Specification of Letters Patent.

Patented Nov. 7, 1905

Application filed May 1, 1905. Serial No. 258,333.

*To all whom it may concern:*

Be it known that I, BELLA McMAHAN, a citizen of the United States, residing at Six Points, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Invalid-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.

My invention relates to invalid-beds; and its object is to provide a device of this character having a back-support of novel construction adapted to normally assume a position on the mattress of the bed and which can be conveniently raised and supported thereabove.

Another object is to provide a sectional bed-bottom, one portion of which can be readily removed.

A still further object is to provide a detachable shelf adapted to be disposed beneath the bed-bottom for the purpose hereinafter set forth.

With the above and other objects in view the invention consists of a bed of any preferred proportions, having the bottom thereof formed in sections. One of the sections is located adjacent the center of the bed and extends transversely thereof and is normally supported by rotatable brackets connected to the side rails. The mattress is also formed in sections and corresponding with the sections of the bed-bottom. Hangers extend downward from positions adjacent the removable section and are adapted to support a removable shelf. A back-support is hinged upon the side rails and normally assumes a position upon one of the mattress-sections. This support consists of a frame having a fabric covering and supporting-strips adapted to engage racks secured to the side rails.

The invention also consists of the further novel constructions and combinations of parts hereinafter more clearly set forth, and pointed out in the claims.

In the accompanying drawings I have shown the preferred forms of my invention.

In said drawings, Figure 1 is a view, partly in perspective and partly in section, showing a bed constructed in accordance with my invention. Fig. 2 is a central longitudinal section therethrough, showing the back-support raised and the removable section of the bed-bottom detached. Fig. 3 is a perspective view of the removable section; and Fig. 4 is a

plan view of a portion of a side rail and showing one of the supporting-brackets connected thereto, one position of the bracket being shown by dotted lines.

Referring to the figures by numerals of reference, 1 1 are the side rails of a bed and are connected in any preferred manner to a head and foot board 2 and 3, respectively. The headboard has a bracket 4, secured to the center thereof and which supports an L-shaped arm 5, which is rotatably supported upon the bracket. This arm terminates in a hook 6, which supports a pulley 7.

Slats 8 of the usual construction are mounted upon cleats 9, secured to the side rails 1, and these cleats are dispensed with at points adjacent the centers of the side rails, and instead thereof I employ brackets 10, which are connected to rotatable rods 11. These rods extend transversely of and are secured to the side rails and have handles 12, whereby the brackets can be rotated so as to project in either direction from the side rails. The brackets 10 are adapted to support a removable bed-bottom section consisting of a broad strip 13, having flexible tabs or extensions 14 at its ends adapted to be engaged by hooks 15, fastened to a rope 16. This rope is tied at 17 to one end of the operating-rope 18, mounted on the pulley 7. A section 19 of the mattress is fitted on the strip 13 and is adapted to be removed therewith. U-shaped hangers 20 extend downward from the slats 8, adjoining brackets 10, and are adapted to support the removable shelf 21. The hangers 20 preferably extend the full width of the bed, so that the shelf 21 can be adjusted to any desired position under the opening formed by the removable strip 13.

An angular frame 22 is hinged upon the side rails 1 near the removable section of the bed-bottom and is covered with canvas 23 or other strong fabric.

A supporting-frame 24 is hinged to the sides of the frame 22 and is adapted to be placed in engagement with any of the teeth on racks 25, secured to the inner surface of the side rails.

The mattress upon the bed is formed of three sections, one section resting upon the removable strip 13, while the other sections are disposed upon the slats upon opposite sides of said strip. When it is desired to place the occupant of the bed in a sitting posture, the frame 22, which normally rests upon one of the mattress-sections, is swung up-



ward to a desired incline and is supported by means of the frame 24 and racks 25. As the frame 22 is covered with canvas or other like material it not only constitutes a comfortable  
 5 back-rest, but also permits air to circulate therethrough and renders the device of particular benefit to invalids when used during warm weather.

By placing the hooks 15 in engagement  
 10 with the tabs 14 the rope 18 can be pulled either by the patient or nurse and will relieve the brackets 10 of the weight of the strip 13 and the person resting thereon. Said brackets 10 can therefore be rotated so as to pass  
 15 from under strip 13, and the strip can then be lowered and removed from under the opening formed in the bed-bottom. Shelf 21 can then be placed on the hangers 20 for supporting a chamber in a desired position under the  
 20 opening. After the shelf has been removed strip 13 can be replaced by reversing the operation above described.

With this form of bed it is unnecessary to move the patient, and said patient can remain covered and not become exposed during the use of the vessel. The mattress-section 19 is the only portion liable to become soiled, and this can be readily replaced by a new one when desired.

30 I attach considerable importance to the use of a fabric back-support which rests upon one of the mattress-sections and which does not necessitate the raising of the mattress or a portion thereof when it is desired to support the patient when sitting. A pulley 26  
 35 may be located in the footboard 3 for the purpose of attaching weighted cords to patients having broken limbs.

When the device is not used by an invalid,  
 40 the arm 5 can be removed by lifting it from bracket 4, and, if desired, the frame 22 can be detached from the rails 1 by removing its hinges.

In the foregoing description I have described the preferred form of my invention;  
 45 but I do not wish to limit myself to the precise construction and combination of parts, as I am aware that modifications can be made therein without departing from the  
 50 spirit or sacrificing the advantages thereof, and I therefore wish to comprehend in this

application all substantial equivalents which may fairly fall within the scope and perview of my invention.

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

1. In a bed, the combination with fixed and removable bottom-sections and a sectional mattress supported thereby, of movable supports for the removable section, side rails supporting the fixed bottom-sections and the movable supports, a back-frame movably connected to the side rails and normally resting upon one of the mattress-sections, and an adjustable support for the back-frame.

2. In a bed, the combination with side rails and a bed-bottom having a removable section; of rotatable brackets connected to the side rails and adapted to support the removable section, a back-frame hinged upon the side rails and adapted to rest thereon, and an adjustable support for the back-frame.

3. In a bed, the combination with side rails; of a bed-bottom supported thereby and having a removable section, rotatable brackets connected to the side rails and adapted to support the removable section, means for rotating the brackets, hangers depending from the bed-bottom at opposite sides of the removable portion, and a shelf adapted to be supported by the hangers.

4. The combination with a bed comprising side rails and a head and a foot board; of a sectional bed-bottom supported by the side rails and having a removable portion, rotatable brackets connected to the side rails for supporting the removable portion, a swinging arm connected to the headboard, an operating device supported by the arm and engaging the ends of the removable portion, and depending brackets secured to the bed-bottom adjacent its removable portion.

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

BELLA McMAHAN.

Witnesses:

GEO. F. FOX,  
 G. R. EICHBAUM.