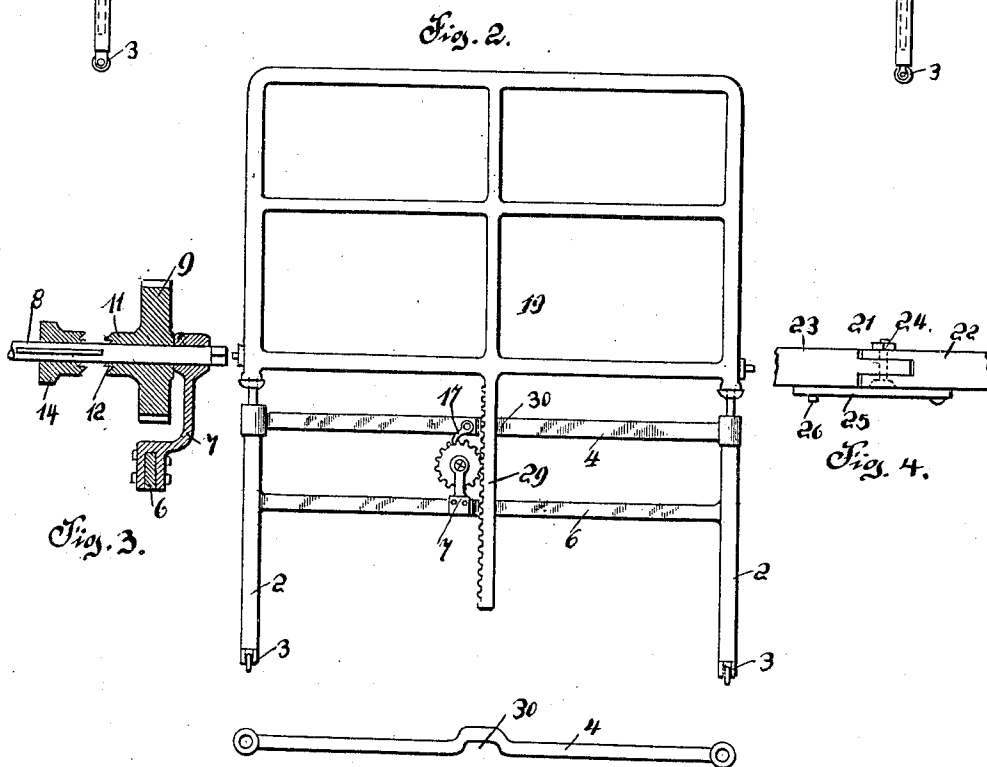
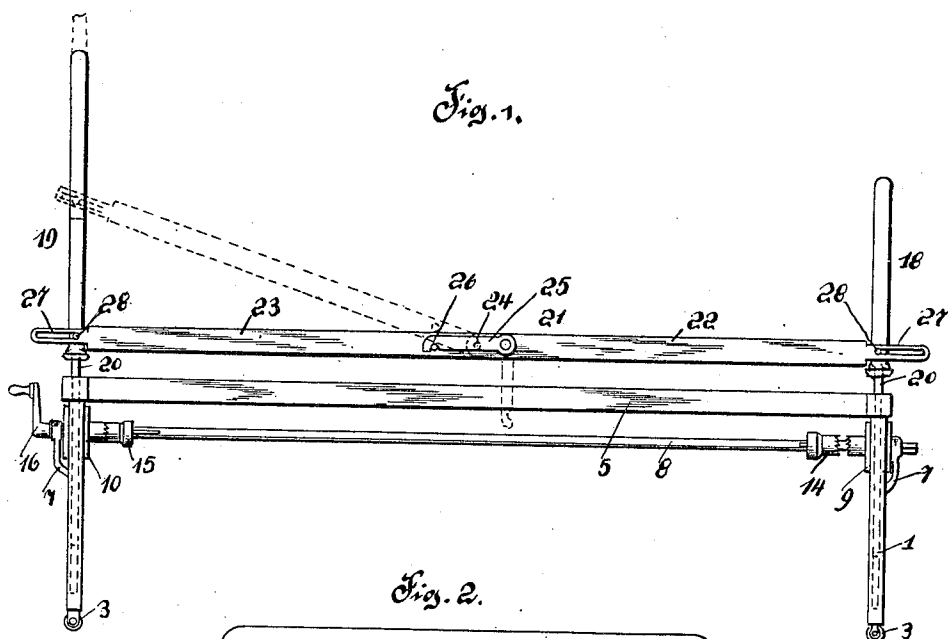


No. 830,261.

PATENTED SEPT. 4, 1906.

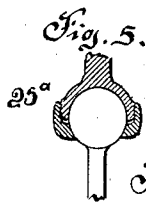
W. B. STERLING.
BED.

APPLICATION FILED APR. 4, 1906.



Witnesses:
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UNITED STATES PATENT OFFICE.

WALTER B. STERLING, OF WELLSBURG, WEST VIRGINIA.

BED.

No. 830,261.

Specification of Letters Patent.

Patented Sept. 4, 1906.

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To all whom it may concern:

Be it known that I, WALTER B. STERLING, a citizen of the United States of America, residing at Wellsburg, in the county of Brooke and State of West Virginia, have invented certain new and useful Improvements in Beds, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in invalid beds; and the invention has for its primary object to provide a novel form of adjustable invalid-bed which can be easily and quickly manipulated without jarring the bed to raise an invalid or patient above the frame of a bed to permit of the bedclothes being renewed or to maintain a patient at a more convenient elevation at which he can be attended.

20 Another object of this invention is to provide a bed wherein the head or foot of the bed can be raised to an inclination to support a patient or invalid in an inclined position.

25 Another object of this invention is to provide a simple, strong, and durable and comparatively inexpensive invalid-bed particularly adapted to be used in hospitals, sanatoriums, and like places.

30 A further object of this invention is to provide a bed which will be perfectly sanitary, positive in action, and free from all danger of being injured by constant use.

35 With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described and claimed, and referring to the drawings accompanying 40 this application like numerals of reference designate corresponding parts throughout the several views, in which—

45 Figure 1 is a side elevation of a bed constructed in accordance with my invention, the head of the bed being illustrated in dotted lines at a slight inclination. Fig. 2 is an end view of my improved bed. Fig. 3 is a detail sectional view of a clutch used in connection with the bed. Fig. 4 is a plan of one 50 of the hinges of the bed. Fig. 5 is a plan of one of the end bars of the bed. Fig. 6 is a detail view of the universal joint or ball-and-socket connection used in connection with the bed.

55 To put my invention into practice, I construct my improved bed of tubular foot-

posts 1 1 and tubular head-posts 2 2, the lower ends of which can be provided with rollers 3, whereby the bed may be easily and quickly moved from one place to another. 60 The foot-posts 1 1 and the head-posts 2 2 are connected together by transverse end bars 4 4 and longitudinally-disposed rails 5 5. The foot-posts 1 1 and the head-posts 2 2 are further braced by transverse bars 6 6. Upon 65 the bars 6 6 are mounted two alining brackets 7 7, and between said brackets is journaled a shaft 8, upon which is loosely mounted adjacent to the posts 1 1 and the posts 2 2 gear-wheels or pinions 9 and 10. Each gear- 70 wheel or pinion carries a sleeve 11, having teeth 12 formed in its one end corresponding to a clutch member. Slidably keyed at the ends of the shaft 8 are clutch members 14 and 15, these members being manually 75 moved to engage the sleeves 11 of the gear wheels or pinions 9 and 10, when it is desired to rotate said pinions. A crank-handle 16 is used in connection with the shaft 8 and can be detachably mounted upon either end 80 of the shaft to rotate the same. The end bars 4 4 are provided with pivoted pawls 17, adapted to engage the gear-wheels or pinions 9 and 10 and hold said gear-wheels or pinions in a fixed position. 85

The main frame of the bed is formed of a foot-frame 18 and a head-frame 19, said frames having depending contracted posts 20, adapted to slide within the foot-posts 1 1 and head-posts 2 2. The frames 18 and 19 90 are connected together by two-part side-rails 21 21, each rail consisting of two sections 22 and 23, which are hinged together, as at 24, the section 22 being provided with a pivoted hook 25, adapted to engage a pin 26, 95 carried by the section 23. The hook 25 and the pin 26 are employed for locking the sections of rails in alinement with one another, whereby they will support a patient or invalid in a horizontal position. The ends of 100 the rails 21 21 are contracted and slotted, as at 27, to engage pins 28 28, carried by the foot-frame 18 and the head-frame 19.

The rails 21 21 can support a spring or mattress, together with other bedding essential 105 for an invalid-bed, and in this connection I do not care to confine myself to the manner in which the bed is held by the rails, as my invention entirely resides in the novel adjustable features of the bed, the many advantages of which will be apparent to physicians, 110 nurses, and persons having use for the same.

In order that the main frame of the bed may be raised and lowered, I have provided the foot-frame 18 and the head-frame 19 with central depending racks 29, adapted to
 5 engage the gear-wheels or pinions 9 and 10. The end bars 4 and 6 are recessed, as at 30, to permit of the racks alining with the pinions or gear-wheels 9 and 10, the recesses of said bars also serving to guide the racks in their
 10 movement and, together with the depending posts 20, rigidly support the main frame and prevent the same from shifting laterally.

When it is desired to elevate the main frame of the bed, the clutch members 14 14
 15 are moved into engagement with the pinions or gear-wheels 9 and 10, and the shaft 8 is rotated, which simultaneously raises both ends of the main frame of the bed, said main frame being held in its adjusted position by the
 20 pawls 17 engaging the gear-wheels or pinions 9 and 10.

Should it be desired to simply elevate one end of the bed-frame—for instance, the sections 23 23 of the rails 21 21—the clutch 14 is
 25 moved out of engagement with the gear-wheel 9, said wheel being held by the pawl 17, while the clutch 15 is moved into engagement with the gear-wheel 10 and the shaft rotated until the head-frame 19 is sufficiently elevated to support the sections 23 23 of the
 30 rails 21 at the desired inclination. The pawl 17 at the head of the bed is adapted to hold the head-frame 19 in an elevated position. The sections 22 22 at the foot of the bed can
 35 also be inclined, it being understood that when this operation is performed the hooks 25 are disengaged from the pins 26.

In Fig. 6 of the drawings I have illustrated a ball-and-socket connection 25^a, which can
 40 be used in connection with the foot-frame 18 and the head-frame 19, whereby said frames may be positioned at an inclination relative to the rails 21 21.

From the foregoing description, taken in
 45 connection with the drawings, it will be observed that I have devised a novel form of adjustable bed having sufficient rigidity to at

all times insure a perfect supporting of an invalid or patient and that the mechanism which I employ in connection with the bed
 50 for accomplishing the adjustment is simple and of a noiseless character particularly adapted for hospitals and sanitariums.

I preferably construct my improved bed of iron and steel, which can be suitably finished—for instance, enameled—whereby it
 55 will be perfectly sanitary and may be easily and quickly cleaned.

Such changes as are permissible by the appended claims may be resorted to without
 60 departing from the spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. A bed of the character described embodying tubular posts, end bars, side rails, a
 65 revoluble shaft supported by said end bars, gear-wheels loosely mounted upon said shaft, clutches carried by said shaft and adapted to engage said gear-wheels, an end frame slidably mounted in some of said posts, a head-
 70 frame slidably mounted in some of said posts, two-part hinged rails carried by said frames, depending racks carried by said frames and adapted to engage said gear-
 75 wheels, means to maintain said two-part hinged rails in a horizontal position, and means to revolve said shaft, substantially as described.

2. A bed of the character described embodying tubular posts, an end frame slidably mounted in some of said posts, a head-
 80 frame slidably mounted in the other of said posts, two-part hinged rails connecting said frames, means to simultaneously raise said
 85 frames, and means to independently raise said frames, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

WALTER B. STERLING.

Witnesses:

COLIN R. WEIRICH,
 GEO. W. MCCLEARY.