

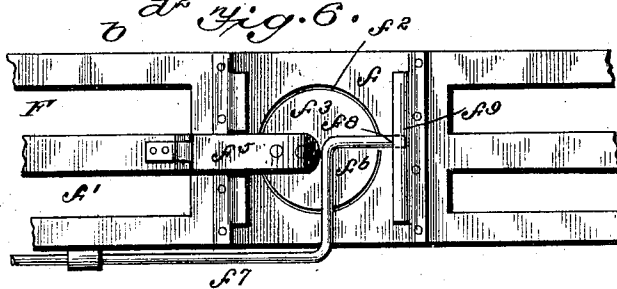
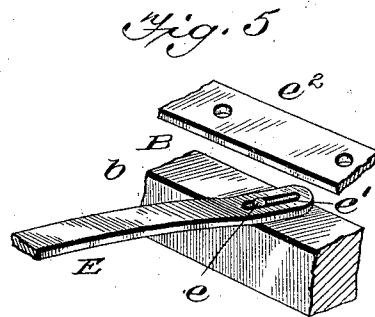
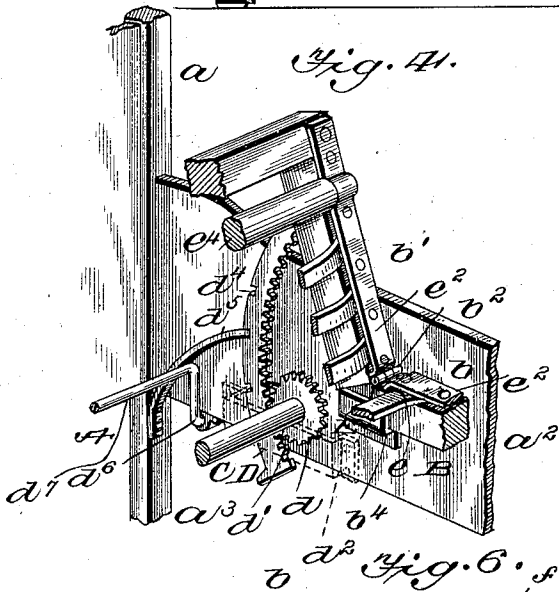
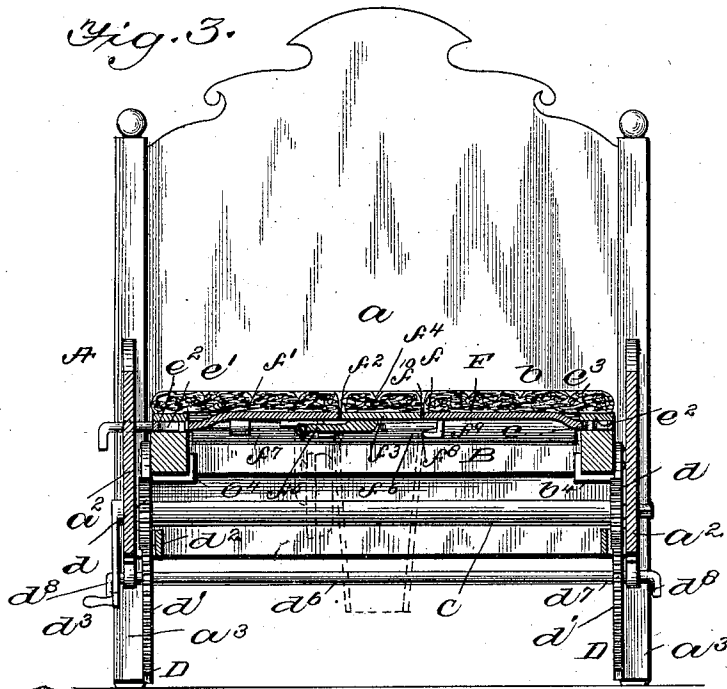
(No Model.)

2 Sheets—Sheet 2.

I. LAURIN.
BED.

No. 576,590.

Patented Feb. 9, 1897.



Witnesses

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UNITED STATES PATENT OFFICE.

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BED.

SPECIFICATION forming part of Letters Patent No. 576,590, dated February 9, 1897.

Application filed May 6, 1896. Serial No. 590,507. (No model.)

To all whom it may concern:

Be it known that I, ISAAC LAURIN, a citizen of the United States, residing at Rhinelander, in the county of Oneida and State of Wisconsin, have invented certain new and useful Improvements in Beds; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in beds and the like.

The object of the invention is, primarily, to produce a combined bed, spring, and mattress adapted for use in hospitals or by invalids which shall be simple in construction and efficient in operation and capable of ready and easy adjustment to various positions, whereby the comfort of the patient is greatly enhanced.

A further object is to so construct a bed and mattress therefor that the ordinary form of bed-pan now in general use can be dispensed with and a more convenient form employed.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view on line 3 3, Fig. 2. Figs. 4, 5, and 6 are detail views.

Referring to the drawings, A designates the bedstead, which comprises the usual head-board a , foot-board a' , side boards a^2 , and supporting-legs a^3 .

B designates the bed-frame, which is made up of two sections b b' , pivotally connected together at b^2 , the section b being rigidly secured to the side boards a^2 by means of straps b^3 . The side bars of bed-frame B, where the same are pivotally connected, are also supported by hangers b^4 , secured to the inner faces of said side boards.

The section b' is capable of being raised and lowered by means of a shaft C, journaled at its ends in the side boards a^2 and having toothed wheels d , which are adapted to engage the inner toothed edges d' of curved arms or segments D, working in guideways

d^2 and connected at their upper ends to the side bars of said section b' . The shaft C is provided with a crank-handle d^3 , whereby the same may be easily rotated. In the rear edges of arms or segments D are formed notches d^4 , which are adapted to be engaged by spring-arms d^5 , secured to the legs a^3 of head-board a , whereby the section b' may be held elevated to any desired position. When it is desired to lower said section, spring-arms d^5 are disengaged from notches d^4 by means of a rod or shaft d^6 , journaled in the bedstead A and having angular portions d^7 , adapted to engage said spring-arms when said rod or shaft is rotated. Said rod or shaft is also provided with operating crank-arms d^8 .

E designates a series of slats made of spring metal, said slats being secured to the bed-frame by rods or bolts e , passed through slots e' , formed in the ends thereof. The slats E are bowed when secured in position, and the slots e' allow of a limited longitudinal movement thereof when the bed is occupied. Protecting-strips e^2 are secured to the side bars of the bed-frame over the ends of said slats and serve to prevent any interference between the latter and the bedclothing. A suitable mattress e^3 is designed to be placed on the bed-frame and a roller e^4 is journaled in section b' of the latter in order to allow said mattress to slide thereover when said section is being elevated.

F designates a metallic plate or slat provided with a central enlarged portion f and end extensions f' similar in construction to slats E. In the enlarged portion f is formed a circular hole or opening f^2 , which is normally closed by a trap f^3 , having a padded surface f^4 and provided with an arm f^5 , pivoted to the under side of one of the extensions f' . The trap f^3 is held in its closed position by the bent portion f^6 of an arm f^7 , mounted to slide back and forth in the bed-frame, the inner end f^8 being designed to rest on a ledge or support f^9 of said slat F. Mattress e^3 is provided with an opening f^{10} , corresponding with opening f^2 . The object of this arrangement is to dispense with the use of the ordinary bed-pan, the patient being elevated into a sitting posture or approximately so by raising section b' of the bed-frame, a suitable vessel G being placed beneath the bed and

serving the same purpose as the bed-pan. It is clearly apparent that the trap f^3 may be readily and easily raised and lowered by moving arm f^7 in or out, as the case may be.

5 The advantages of my invention will be at once apparent to those skilled in the art to which it appertains, and it will be specially observed that the same comprises but few parts and is not liable to readily get out of
10 order or become deranged.

I claim as my invention—

1. The herein-described improved bed, comprising a bedstead, a bed-frame secured therein and having a pivoted section, curved arms
15 secured to said pivoted section and provided with teeth in their front edges and notches in their rear edges, a shaft rotatably mounted in said bedstead and having pinions mounted thereon adapted to engage the teeth of said
20 arms, spring-arms adapted to engage said notches, and a shaft adapted to disengage said spring-arms from said notches, substantially as set forth.

2. The herein-described improved bed, comprising a bedstead, a bed-frame secured therein and having a pivoted section, curved arms
25 secured to said pivoted section and provided with teeth in their front edges and notches in their rear edges, a shaft rotatably mounted in said bedstead and having pinions keyed
30 thereon and adapted to engage the teeth of said arms, spring-arms adapted to engage said notches, and a rotatable rod or shaft having a crank-handle and angular portions adapted

to disengage said spring-arms from said 35 notches, substantially as set forth.

3. The herein-described improved bed, comprising a bed-frame having a pivoted member, spring-slats secured to said bed-frame, one of which is provided with a central enlarged portion having a hole or opening, a trap
40 adapted to normally close said opening and having an arm or extension pivotally connected to said latter slat, and a rod or arm for normally holding said trap closed, substantially as and for the purpose set forth. 45

4. The herein-described improved bed, comprising a bed-frame having a pivoted member, spring-slats having central bowed portions and outer slotted ends secured to said
50 bed-frame, one of which is provided with a central enlarged portion having a hole or opening, a ledge or support formed on the under side of said enlarged portion adjacent said opening, a trap pivotally connected to said slat
55 and adapted to normally close said opening, and a rod or arm the inner end of which is adapted to rest on said ledge or support and hold said trap in its normally-closed position, substantially as and for the purpose set forth. 60

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

ISAAC ^{his} LAURIN.
mark

Witnesses:

WM. W. CARR,
B. F. EDWARDS.