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E. B. PRESTON.
SPRING AND MATTRESS FOR INVALID BEDS.
APPLICATION FILED JUNE 13, 1906.

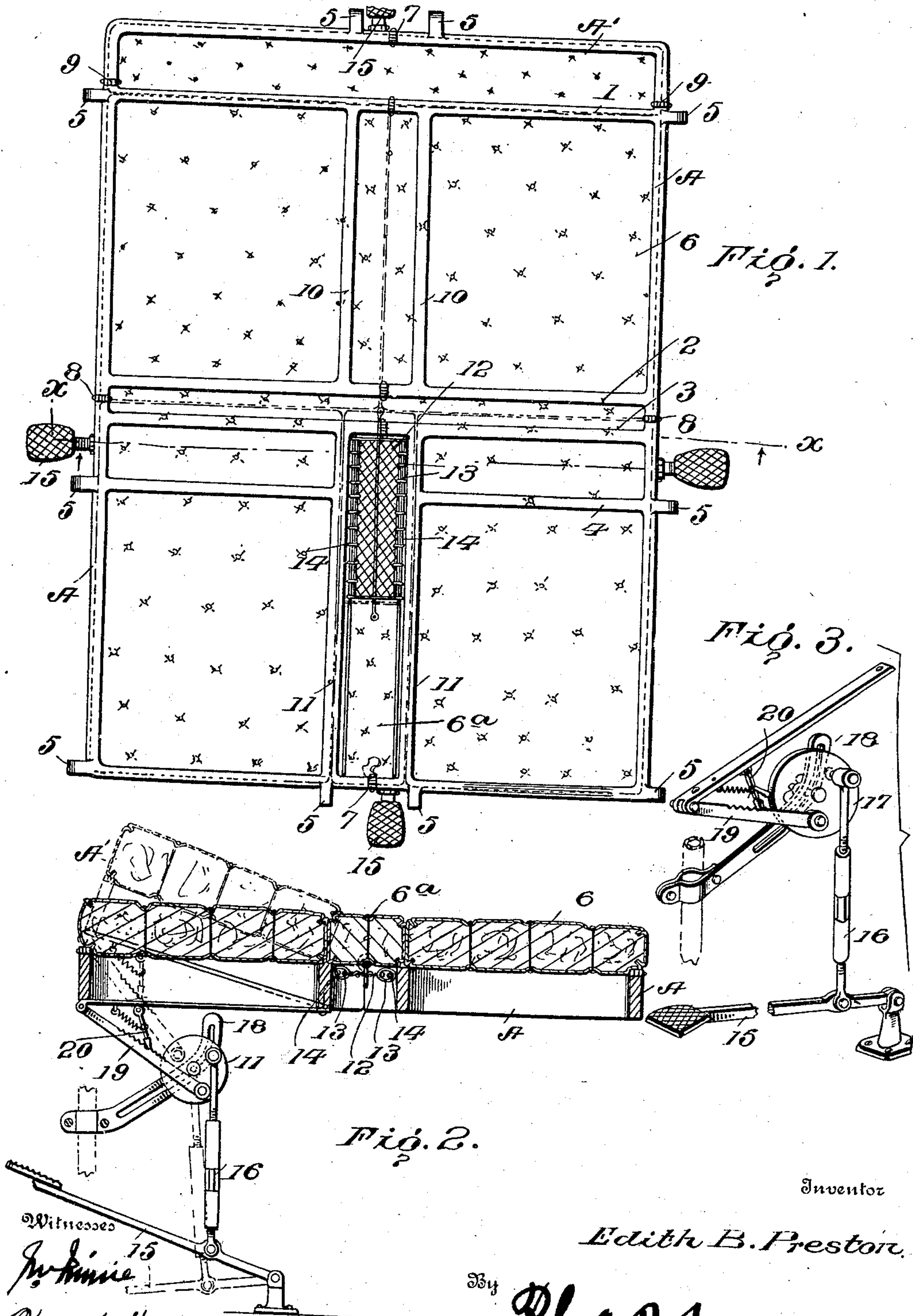


Fig. 2.

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EDITH B. PRESTON, OF MEXICO, MISSOURI.

SPRING AND MATTRESS FOR INVALID-BEDS.

No. 842,973.

Specification of Letters Patent.

Patented Feb. 5, 1907.

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To all whom it may concern:

Be it known that I, EDITH B. PRESTON, a citizen of the United States, residing at Mexico, in the county of Audrain and State of Missouri, have invented certain new and useful Improvements in Springs and Mattresses for Invalid-Beds, of which the following is a specification.

This invention relates to improvements in beds, and embodies particularly a novel form of bed-spring in connection with a specially-devised mattress therefor.

The invention resides, essentially, in novel details of construction, the advantages of which will appear more fully hereinafter, and which will be finally claimed.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a top plan view of a bed-spring constructed in accordance with this invention, a mattress being shown in dotted lines thereon. Fig. 2 is a sectional view on the line X X of Fig. 1. Fig. 3 is a perspective view of the elevating device which may be used at different points for raising the sections or parts of the spring and mattress to the desired adjustment.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In carrying out the invention, a spring is utilized and comprises a frame A, which may be provided with suitable springs attached thereto in a well-known manner, the last-mentioned parts not being illustrated, as they do not form any part of the invention. The frame A is of peculiar form, being provided with the cross-bars 1, 2, 3, and 4, between the upper and lower transverse bars thereof. Certain of the cross-bars above mentioned may be extended to form hooks 5 at the sides and ends of the frame A and adapted to engage over side rails and ends of the bedstead, so as to support the frame in position thereon. The frame A is made in a number of sections which are adapted to be adjusted so as to elevate a certain portion of said frame and the mattress 6, which is carried thereon, as found necessary and desirable in the use of the invention, which is adapted particularly for hospital use to facili-

tate operations on patients. The upper and lower bars of the frame A are provided with intermediate hinges 7, permitting of raising opposite side portions of the frame to a desired adjustment. Furthermore, each of the longitudinal or side bars of the frame A likewise has a hinge 8 intermediate of its ends whereby either the upper or lower portion of the frame and the mattress carried thereby may be elevated to a desired adjustment by movement of the parts about a relatively transverse axis. Near the top bar of the frame A is located the cross-bar 1, and the side bars of the frame adjacent to said cross-bar 1 have auxiliary hinges 9, which admit of raising the upper end of the frame A, and which virtually constitutes a head-section A'.

The mattress 6, disposed on the frame A, will of course be made in a number of sections, preferably about six in number, to admit of readily adjusting the parts of the frame. For instance, when the head-section A' of the frame is elevated slightly, the head-section of the mattress 6 will likewise be readily raised. If the upper half of the frame A or the lower half or either of the side halves, which will constitute sections, are desired to be raised, the action is facilitated by the fact that the mattress-section will accommodate for such movement. The cross-bars 1, 2, 3, and 4 are necessarily utilized in order to support the mattress-sections, which, however, are carried upon the springs of the frame A to a certain extent. The bars 1 and 2 are connected intermediate the ends by longitudinal bars 10, and similar bars 11 are located at the lower portion of the frame virtually in alignment with the bars 10 and connecting other of the cross-bars of the frame A. About centrally of the frame A of the spring is located a supplementary small spring-frame 12, which is of somewhat oblong form and which has secured thereto a number of rings 13. The rings 13 receive rods 14, arranged in paralleling relation to the bars 11, and the frame 12 is thus slidably mounted on the rods 14 for movement longitudinally of the frame A. The mattress 6 is formed with a lower section 6^a, which may be made about twenty inches wide and which extends from the bar 3 to the lower bar of the frame A. The upper portion of the section 6^a of the mattress 6 is attached to the frame 12 in any suitable manner, and it will be apparent that whenever it is desired to move the uppermost portion of said mattress-section 6^a lon-

gitudinally of the frame A this may be read-
 ily done by elevating the lowermost extrem-
 ity of this section 6^a and pulling downwardly
 thereon. The expressions "upwardly" and
 5 "downwardly" used in the foregoing de-
 scription are relative and may be taken in
 the sense of longitudinally of the frame A.
 By adjustment of the section 6^a of the
 mattress 6 it will be readily observed that
 10 an opening may be created in the body of the
 mattress by reason of the slidable move-
 ment of the frame 12 and the mattress por-
 tion carried thereby under adjustment, as
 hereinbefore set forth.
 15 It is contemplated within the invention to
 provide suitable means for raising the sec-
 tions or adjustable portions of the frame A
 and the sections of the mattress 6 mounted
 thereon. Figs. 2 and 3 illustrate such means
 20 wherein is provided an elevating device con-
 sisting of a foot-lever 15, connected by an
 adjustable rod 16 with a wheel 17, journaled
 to a bracket 18, or any other suitable support
 which may be attached to the bedstead ad-
 25 jacent to the parts comprising the invention
 hereinbefore described. The wheel 17 will
 be connected by a rod 19 with a suitable por-
 tion of the frame A, and it will be apparent
 that on downward pressure of the lever 15
 30 the portion of the frame A connected with
 rod 19 will be readily elevated and may be
 held in an adjusted position by a suitable

ratchet-pawl 20 engaging said rod 19. It
 will be understood that several of the elevat- 35
 ing devices above described may be used to
 raise any of the various sections or portions
 of the frame A and mattress-sections carried
 thereby. One may be located at the head of
 the frame A, others at opposite sides of the
 frame, and still others at the upper and 40
 lower portions of the frame, so as to raise the
 respective parts according to the desired ad-
 justment thereof.

The workings of the invention and the ad-
 vantages will be apparent from the foregoing. 45

Having thus described the invention, what
 is claimed as new is—

In a bed, the combination of a spring-frame
 embodying a movable section, and means for
 raising and lowering said section, and con- 50
 sisting of a wheel, a foot-lever, a rod connect-
 ing the wheel with the foot-lever, a rod con-
 necting the wheel with the movable section of
 the spring-frame, and ratchet means carried
 by the frame and coöperating with the rod 55
 last mentioned to hold the movable section
 of the frame at a desired adjustment.

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

EDITH B. PRESTON. [L. s.]

Witnesses:

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