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E. B. PRESTON.

SPRING AND MATTRESS FOR INVALID BEDS.

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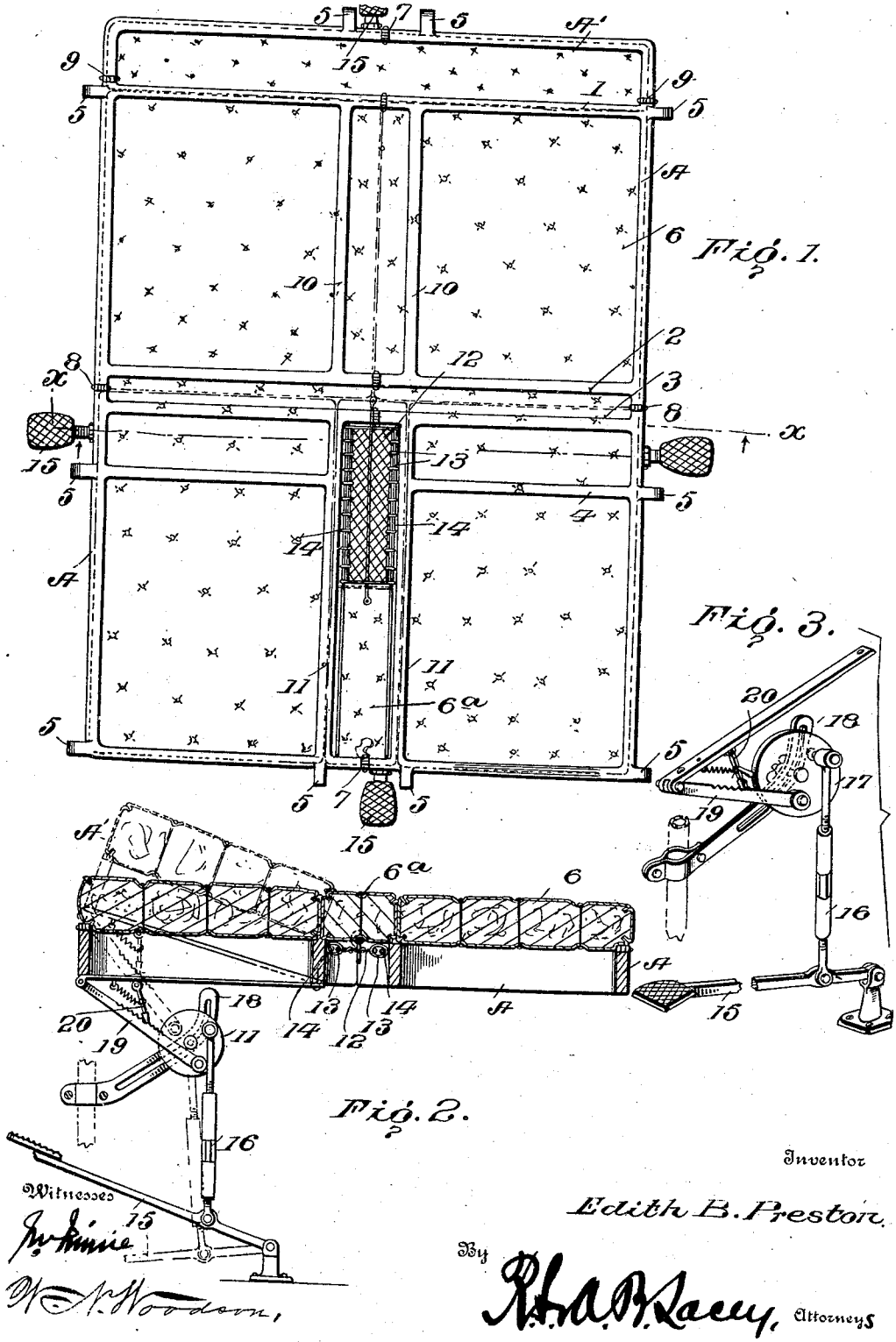


Fig. 1.

Fig. 3.

Fig. 2.

Witnessed

Inventor

Edith B. Preston.

By R. A. P. Lacey, Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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 facilitate 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 alinement 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 readily done by elevating the lowermost extremity of this section 6ª and pulling downwardly thereon. The expressions "upwardly" and "downwardly" used in the foregoing description are relative and may be taken in the sense of longitudinally of the frame A. By adjustment of the section 6ª of the mattress 6 it will be readily observed that an opening may be created in the body of the mattress by reason of the slidable movement of the frame 12 and the mattress portion carried thereby under adjustment, as hereinbefore set forth.

It is contemplated within the invention to provide suitable means for raising the sections or adjustable portions of the frame A and the sections of the mattress 6 mounted thereon. Figs. 2 and 3 illustrate such means wherein is provided an elevating device consisting 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 adjacent to the parts comprising the invention hereinbefore described. The wheel 17 will be connected by a rod 19 with a suitable portion of the frame A, and it will be apparent that on downward pressure of the lever 15 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 elevating 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 lower portions of the frame, so as to raise the respective parts according to the desired adjustment thereof.

The workings of the invention and the advantages will be apparent from the foregoing.

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 consisting of a wheel, a foot-lever, a rod connecting the wheel with the foot-lever, a rod connecting the wheel with the movable section of the spring-frame, and ratchet means carried by the frame and coöperating with the rod 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:
JNO. T. BAKER,
LIZZIE BURNET.