

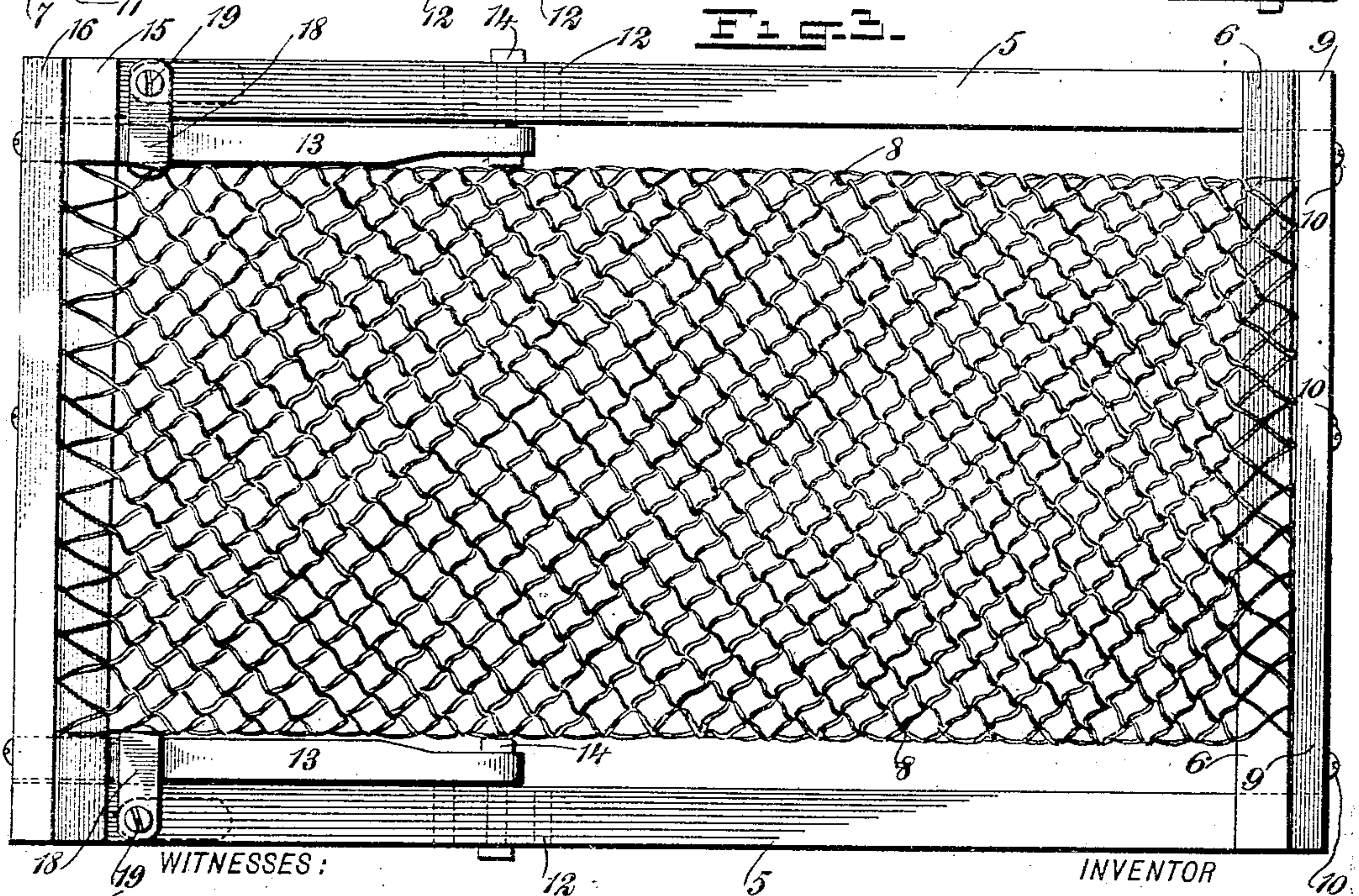
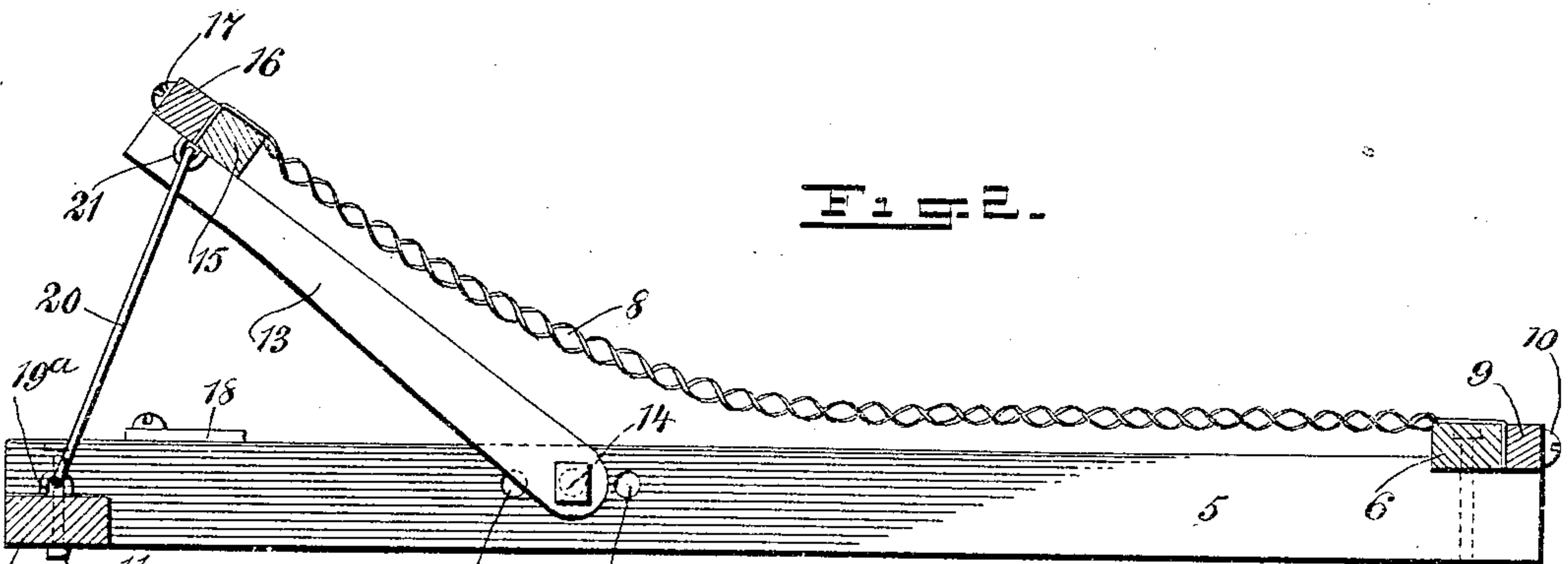
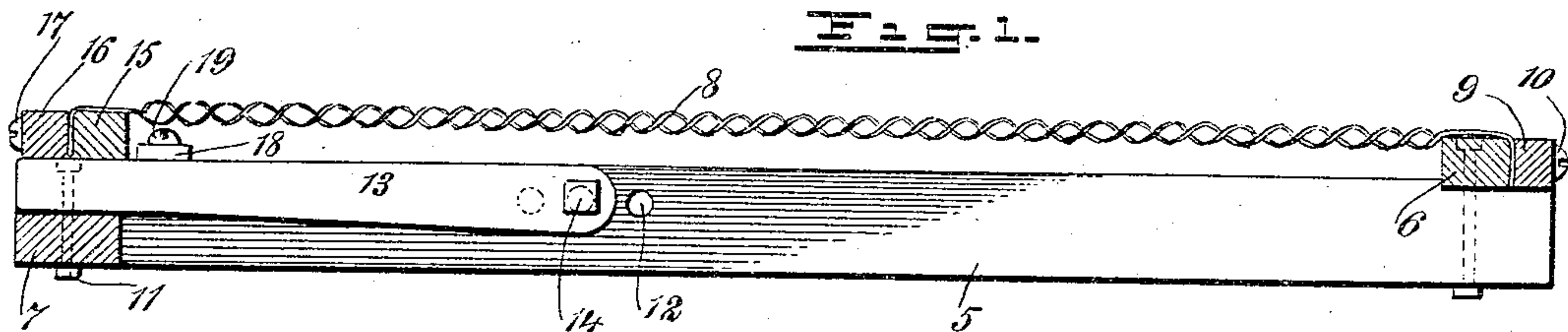
No. 745,764.

PATENTED DEC. 1, 1903.

J. L. BARNAMAN.  
BED SPRING.

APPLICATION FILED JAN. 29, 1902.

NO MODEL.



WITNESSES:

*Geo. W. Maylor*

*H. J. Beruhard*

INVENTOR

*James L. Barnaman*

BY

*Mum*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

JAMES LEE BARNAMAN, OF BUTTE, MONTANA.

## BED-SPRING.

SPECIFICATION forming part of Letters Patent No. 745,764, dated December 1, 1903.

Application filed January 29, 1902. Serial No. 91,760. (No model.)

### *To all whom it may concern:*

Be it known that I, JAMES LEE BARNAMAN, a citizen of the United States, residing at Butte, in the county of Silverbow and State of Montana, have invented certain new and useful Improvements in Bed-Springs, of which the following is a full, clear, and exact description.

My invention relates to improvements in bed-springs adapted to be used in connection with the frame of a cot or bedstead; and the object that I have in view is the provision of simple and efficient means for easily taking up any slack which may occur in the article through undue stretching of the bed-spring, thus overcoming sagging of the bed and contributing to the comfort of the occupant.

A further object of the invention is to allow the head-section to be raised and sustained at an angle in order to suit the convenience of a sick person, and, furthermore, to increase the strength of the structure, to simplify its construction, and to reduce the cost of manufacture.

With these ends in view the invention consists in the novel construction, arrangement, and combination of parts, which will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical longitudinal section through my improved bed-spring, showing it in its taut or stretched condition. Fig. 2 is a similar view with the head-section raised to an inclined position to suit the convenience of a sick person. Fig. 3 is a plan view of the bed in the condition shown by Fig. 1.

The frame of the bed consists of the side rails 5, the foot-rail 6, and the head-rail 7, all of which are substantially secured together by any preferred means. A bed-spring 8 of any usual or preferred construction is employed, said bed-spring being preferably of the type known to those skilled in the art as a "wire mattress." One end of the wire mattress is stretched over the foot-rail 6 and is secured thereto by any temporary fastenings, such as nails, staples, or the like. The attachment of the wire mattress to the foot-rail is made permanent by the employment of a

clamping-strip 9, which is applied over the lapped end of the mattress, said clamping-strip being disposed parallel to the foot-rail and secured thereto by a series of screws 10, or bolts can be substituted for the screws.

The head-rail 7 is not as thick as the side rails 5 of the bed-frame, and these rails are mortised together and secured firmly by bolts, as indicated at 11. The side rails 5 are provided with series of bolt-apertures 12, each series of apertures comprising three or more in number, and the apertures of one series being formed in one of the rails 5 in a position corresponding to the similar series of apertures in the other rail 5 of the bed-frame.

13 designates a pair of arms which are disposed within or between the side rails 5 of the bed-frame, as shown by Fig. 3, and these arms are adjustably and hingedly connected to the side rails 5 by means of the bolts 14. The bolts pass through suitable openings which are provided in the arms 13 and through corresponding openings in the two series of apertures 12; but these bolts may be shifted to other apertures of the series when it is desired to adjust the arms 13 lengthwise of the bed-frame in order to stretch the wire mattress and to increase the tension thereof with a view to taking up any slack in said mattress.

It will be recalled that one end of the wire mattress has fixed engagement with the foot-rail of the bed-frame, and in order to stretch this mattress its other end is clamped securely to the hinged and adjustable arms 13. A rail 15 is secured firmly to the pair of arms 13 near the upper ends thereof, and over this rail is arranged the other end of the wire mattress 8. Against the overlapping end of said mattress is applied a clamping-strip 16, which is made fast to the strip 15 by a series of screws 17 or their equivalents.

In the normal condition of the bed for service, as shown by Figs. 1 and 3, the arms 13 are folded down alongside of the rails 5, and these arms are held in their lowered positions by the employment of the turn-buttons 18, the same being pivoted at 19 to the side rails 5 and adapted for adjustment across the pivoted arms 13, as shown by full lines in Fig. 3. In this position of the parts the mattress 8 is held in a taut stretched condition; but when



the mattress sags the turn-buttons 18 are turned to the position indicated by dotted lines in Fig. 3, thus releasing the arms 13 and allowing the operator to raise said arms and the head-section to the inclined position shown by full lines in Fig. 2. The clamping-strip 9 is now released from the foot-rail 6 and a short section of the mattress is drawn over said foot-rail, after which the clamping-strip 9 is again secured tightly in place in order to firmly clamp the mattress between itself and said foot-rail. The operator now forcibly presses down upon the arms 13, so as to stretch the mattress, and then the buttons 18 are turned across the arms for the purpose of locking them in their operative positions. If the mattress should be unduly stretched, so that the slack cannot be taken out of the same by the described adjustment the position of the pivotal bolts 14 is changed from one opening to the other of the series of openings 12 in the side rails, and then the pivoted arms are pressed downward and the catches 18 are engaged therewith, thus taking up the slack in the bed-bottom by another method of adjustment.

The head-rail 7 is provided with an eye 19<sup>a</sup>, with which is adapted to engage a brace or stay 20, the other end of which may be detachably engaged with an eye 21, that is secured to one or both of the rails 15 or 16 on the pair of pivoted arms. This stay may be

employed to hold the head-section in its raised inclined position in order to suit the convenience of a sick person; but it is evident that the stay may be disconnected from one or both of the eyes when the spring-bed is used in the ordinary way. The parts of the bed-frame other than the mattress 8 may be constructed either of wood or of metal, as may be found desirable.

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

The combination with a mattress-frame and a spring-mattress, of a cross-bar 7 fixed to said frame and lying below the top edge of the side rails thereof, stretching-arms pivotally and shiftably connected to said frame and arranged to rest on said cross-bar in flush relation to the side rails, locking-plates pivoted to the frame-rails and adjustable into engagement with said stretching-arms for locking them in their lowered position, and clamping-bars fastened to the stretching-arms and engaging with said mattress.

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

JAMES LEE BARNAMAN.

Witnesses:

FRANK W. HOLMES,  
A. PERHAM.