

UNITED STATES PATENT OFFICE.

JOHN F. LEACH, OF INDEPENDENCE, MISSOURI.

SPRING-MATTRESS.

SPECIFICATION forming part of Letters Patent No. 569,420, dated October 13, 1896.

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To all whom it may concern:

Be it known that I, JOHN F. LEACH, of Independence, Jackson county, Missouri, have invented certain new and useful Improvements in Spring-Mattresses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to spring-mattresses; and my object is to produce a mattress of this character which is adjustable to fit beds of varying widths, and is also divisible in order that one section or the other may be employed upon a single bed or for a couch or lounge.

A further object is to produce an article of this character which is simple, strong, durable, and inexpensive of manufacture.

To these ends the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents a plan view of a mattress embodying my invention. Fig 2 is an end view of the same folded for transportation. Fig. 3 is a perspective view in detail of one of the adjustable connections between the mattress-sections. Fig. 4 is a side view of a portion of the same.

In said drawings, 1 and 2 designate two similar sections, which conjointly form a single mattress embodying my invention. Each section or member comprises transverse or end bars 3 and a series of longitudinal parallel bars 4, and said longitudinal bars are connected at their upper sides by means of the inclined braces 5.

6 designates the helical springs, which form the mattress proper, and they are arranged upon the transverse or end bars 3 and the longitudinal bars 4 of each frame or section, with their lower ends fastened securely to said bars in any suitable manner, as shown clearly in Fig. 1. As the springs are arranged upon both sections in the same manner the description of one will suffice for both. They are formed of spring-wire of suitable gage in pairs, preferably, such pairs being arranged

side by side and transversely of the mattress and connected by the integral oblique portions 7, and each pair of springs of every longitudinal series are connected at their upper ends and adjacent sides by the links or tie-rods 8. Oblique tie-rods 9 also connect one spring of each transverse pair, except those mounted upon the end bars, with one of the springs of the pair immediately in advance. In other words, all of the springs except those upon the end bars, as hereinbefore referred to, are connected by the oblique and longitudinally-alined tie-rods 9.

In order to reliably and firmly connect the end springs, or those mounted upon the end bars, with the interior springs, or those mounted firmly and reliably upon the longitudinal bars, as described, inclined braces 10 are employed in addition to the longitudinal rod 8, hereinbefore referred to. Said inclined braces are connected securely at their upper ends to the upper convolution of the adjacent longitudinally-alined coils of said interior springs, and their lower ends extend through apertures in the end bar and are brought back and twisted or otherwise reliably secured. These inclined tie-rods serve principally as anchors for each longitudinal series of interior springs, and also for the end springs, by reason of the fact that they are tied directly to said interior springs, so that said springs practically have collective movement only, that is, they are so tied or connected together that weight or pressure applied upon them at any point will be distributed among them all. Therefore it is obvious that by this method of bracing the springs, so that weight applied at any point is distributed among them all, the mattress cannot in a short time become weakened or injured at any particular point, and its life as a whole will therefore be lengthened.

11 designates a pair of rods which extend loosely through openings near the ends of the longitudinal bars 4 of the section 1, and 12 designates a similar pair which extend through the longitudinal bars of the other section or member 2 and in longitudinal alinement with the first-named rods. The rods 11 are bent to hook form, as shown at 12, and detachably engage the eyes 14, formed in the opposing ends of the rods 13, so as to form a

hinge connection, and the outer ends of said rods are bent to form shoulders 15, in order to prevent their accidental withdrawal from the holes or apertures in said bars 4 when the sections are spread apart as far as possible in widening the bed or mattress to its fullest extent by coming in contact with the adjacent sides of one of the bars 4. By this construction it is obvious that the mattress, when the sections are pushed closely together with the adjacent longitudinal series of helical springs overlapping slightly, as shown in Fig. 1, may be employed upon the narrowest of double beds and when drawn out to its fullest extent will be of proper size for a bed of the largest size manufactured, and that without leaving a greater space between the adjacent longitudinal series of said springs than occurs between any pair of longitudinal series of either section. It is also obvious, of course, that it may be adjusted to accommodate beds of intermediate sizes. By disconnecting these sections either one of them may be employed as a mattress for a single bed or for a couch or lounge, and for convenience of shipment or transportation the hinge is of such

construction that one section may be folded squarely upon the other, as illustrated clearly in Fig. 2.

Thus it will be seen that I have produced a spring-mattress which is simple, cheap, durable, and inexpensive of manufacture, and which possesses advantages over mattresses of the ordinary construction, owing to its adjustability as to size and its adaptability for disconnection and for folding for transportation purposes.

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

A spring-mattress, comprising two sections, each consisting of a suitable framework, and a series of springs, sliding rods extending transversely of each framework, and hinged together and provided with shoulders at their outer ends, substantially as described.

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

JOHN F. LEACH.

Witnesses:

M. R. REMLEY,
G. Y. THORPE.