

(No Model.)

B. E. LECKRON.
SPRING BED.

No. 411,343.

Patented Sept. 17, 1889.

Fig. 1.

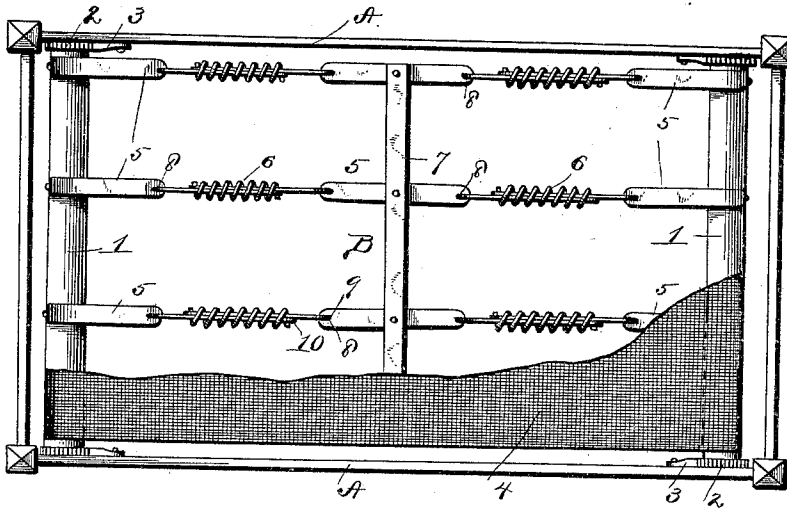


Fig. 2.

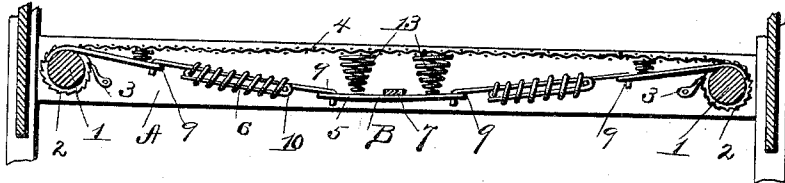


Fig. 3.

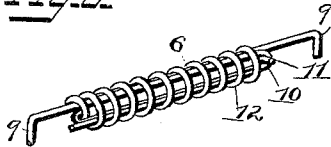
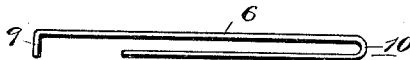


Fig. 4.



Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

BENJAMIN E. LECKRON, OF GLENFORD, OHIO, ASSIGNOR OF ONE-HALF TO
ALFRED CASTANIEN, OF SAME PLACE.

SPRING-BED.

SPECIFICATION forming part of Letters Patent No. 411,343, dated September 17, 1889.

Application filed May 18, 1889. Serial No. 311,255. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN E. LECKRON, a citizen of the United States, and a resident of Glenford, in the county of Perry and State of Ohio, have invented certain new and useful Improvements in Spring-Beds; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to spring-beds.

The object is to produce a spring-bed which shall be of such construction that any sagging of the wire mattress, caused by the long-continued use of the bed, may be taken up, and thus present at all times a level surface for the bedding to rest upon; furthermore, to produce a bed in which the spring-mattress is supported by an auxiliary frame placed under the same, so that the bed may be adapted to sustain different weights, and, finally, to produce a spring-bed which may be constructed at but a slight expense and which will be found of the highest efficiency and durability in use.

With these objects in view the invention consists in a spring-bed provided with means whereby any sagging of the mattress may be taken up.

Furthermore, the invention consists in the improved construction and combination of parts of a spring-bed, as will be hereinafter fully described in the specification, illustrated in the drawings, and pointed out in the claim.

In the accompanying drawings, forming part of this specification, and in which like letters of reference indicate corresponding parts, Figure 1 is a plan view showing the mattress in place in a bed-frame, part of the same being broken away. Fig. 2 is a longitudinal sectional view of the supporting-frame detached from the bed, showing the peculiar construction of the same. Fig. 3 is a detail perspective view of one of the springs, which are to be secured to the supporting-frame and the mattress for giving additional supporting-power to the same. Fig. 4 is a longitudinal

sectional view of the spring and slides for connecting the ends of the supporting-frame, and Fig. 5 is a detail view of one of the slides.

Referring to the drawings, A designates the frame of a bed, in each end of which is mounted, in suitable bearings formed in the sides of the frame, a roller 1, provided on each end with a ratchet-wheel 2, designed to be engaged by pawls 3, also secured to the frame of the bed. Upon these rollers is secured the wire mattress 4, of the ordinary construction as those used in other forms of spring-beds. Under the wire mattress is a supporting-frame B, constructed of metallic straps 5, connected at their ends by spring-actuated slides 6. As this supporting-frame forms one of the essential features of my invention, I will explain it minutely. As before stated, it is constructed of metallic straps 5, of which a number extend longitudinally to the frame of the bed, and are connected at their centers by a cross-strap 7, which holds them together. Both ends of the longitudinal straps are provided with perforations 8, in which are secured the ends 9 of the slides 6. These slides, as will be seen, are U-shaped, and the loops 10 pass around the ends 11 of the coiled spring 12, which ends are bent across the openings at each end. Thus when pressure is exerted on the support these springs will give; but as soon as the pressure is removed therefrom the springs will resume their normal position and thus draw the support to the position it first occupied. As now presented, the mattress is above the supporting-frame and has no connection with it, and in order to make the two coact when strain is applied thereto a number of cone-shaped spiral springs 13 are secured to the straps and rest against the under surface of the mattress and are so arranged at different points on the mattress as to present the greatest resistance where the greatest strain is applied.

Now, it will be readily seen that when the mattress is occupied and the coiled springs under the mattress are compressed the springs connecting on the straps will also be drawn apart, thus presenting a mattress which while having the requisite and necessary resiliency for comfort will be prevented from any bear-

ing down in the center by means of the springs before referred to, and that as soon as the mattress is released from strain the coiled springs immediately force the mattress up to its normal position and at the same time the springs on the straps in resuming their normal position will also tend to produce the same result. Now, after a long-continued use should the wires composing the mattress sag in the center it will only be necessary to turn the rollers 1 at the end of the frame and thus take up any slack or bagging of the mattress.

It will thus be seen that although this device is exceedingly simple of construction it will be found to possess advantages not heretofore attained in mattresses of this peculiar kind.

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

In a spring-bed, the combination, with the frame, of rollers mounted therein carrying ratchet-wheels, pawls pivoted to the said frame and adapted to engage the ratchet-

wheels, longitudinally - extending metallic strips provided with perforations, the terminal strips having one of their ends secured to the rollers, connecting U-shaped slides having their loops arranged adjacent to each other and also having one of their ends extended and bent downwardly, said downwardly-bent ends engaging the perforations of the metallic strips, coiled springs placed around the slides, having their ends bent at right angles to engage the opposite ends of the loops of the adjacent slides, cone-shaped springs having their apices secured to the metallic strips, and a mattress secured to the rollers above the supporting-frame and also bearing upon the base of the conical springs, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

BENJAMIN E. LECKRON.

Witnesses:

ELLA FIROCK,
R. M. BARR.