

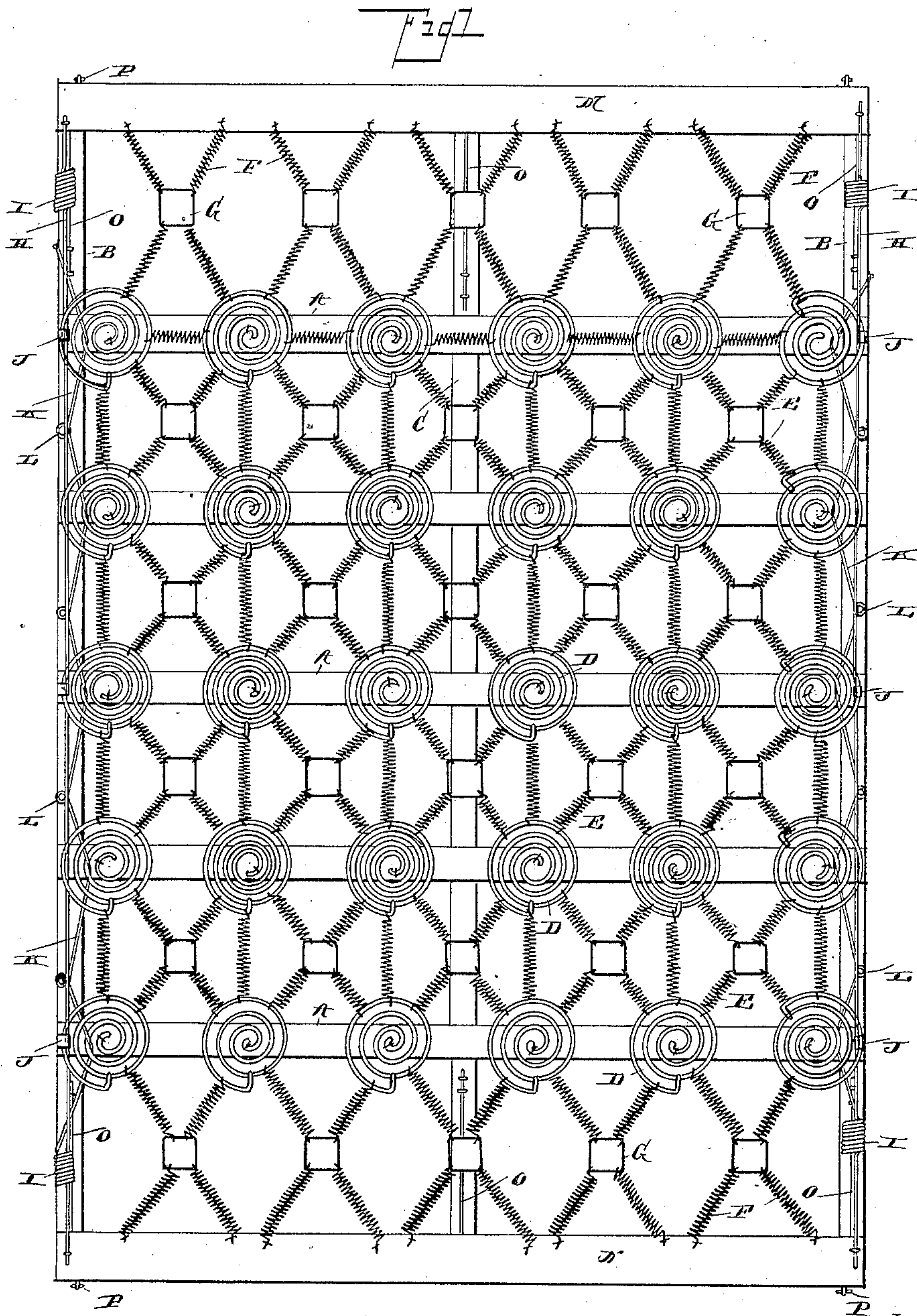
(No Model.)

2 Sheets—Sheet 1.

G. E. MILLER.  
SPRING BED.

No. 422,030.

Patented Feb. 25, 1890.



Witnesses

*John Amrie*

*W. T. Bishop*

By his Attorneys,

*C. A. Snow & Co.*

Inventor

*George E. Miller*

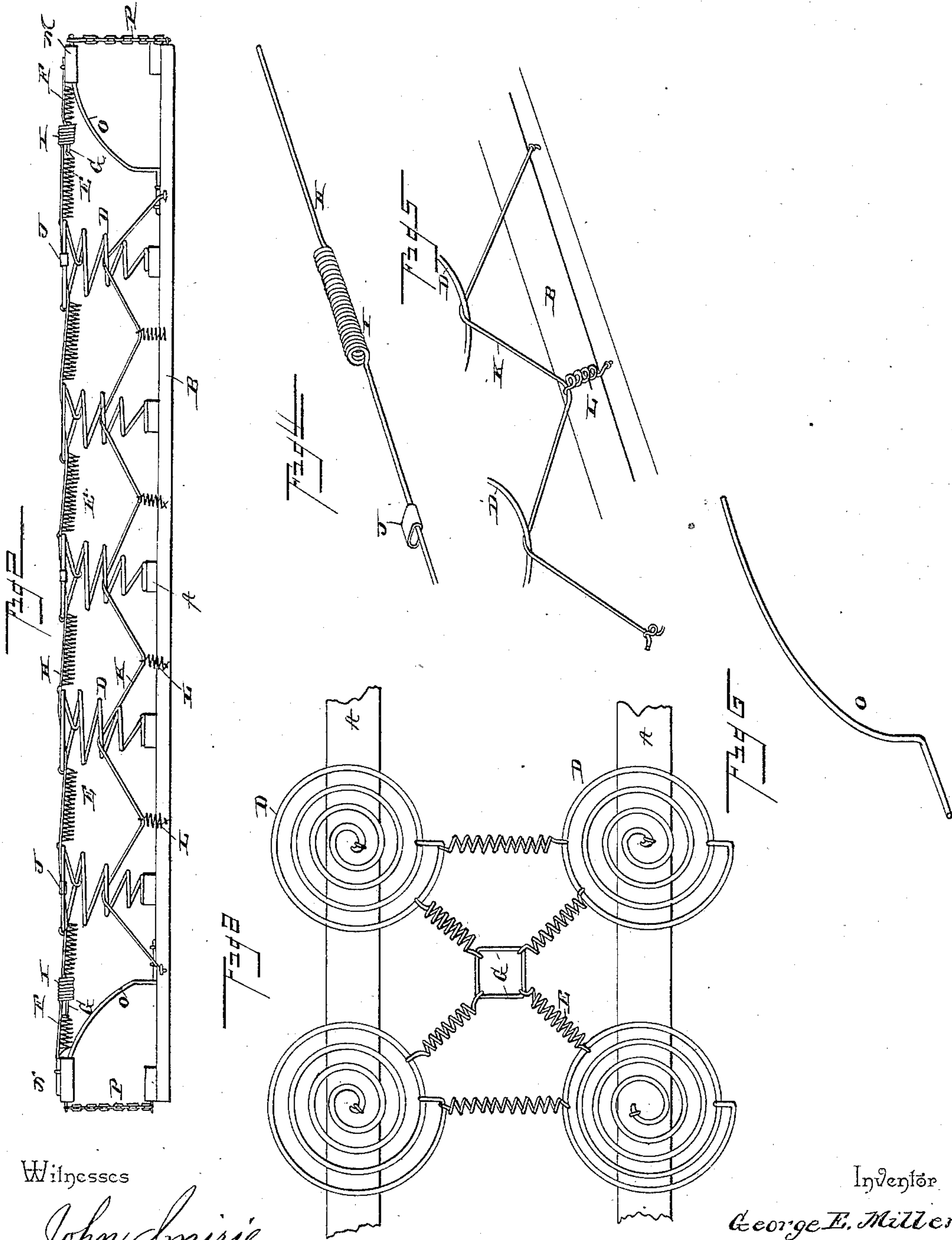
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# UNITED STATES PATENT OFFICE.

GEORGE E. MILLER, OF ST. LOUIS, MICHIGAN.

## SPRING-BED.

SPECIFICATION forming part of Letters Patent No. 422,030, dated February 25, 1890.

Application filed June 28, 1889. Serial No. 315,853. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE E. MILLER, a citizen of the United States, residing at St. Louis, in the county of Gratiot and State of Michigan, have invented a new and useful Spring-Bed, of which the following is a specification.

My invention relates to improvements in spring-beds; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of my improved spring-bed. Fig. 2 is a side view of the same. Fig. 3 is a detail view of the connecting-spring. Figs. 4 and 5 are detail views of the side-securing wires. Fig. 6 is an enlarged view of a spring-brace for the head and foot board.

The slats A are of the usual construction, and are secured at their ends to the side rails B B, and are braced at their centers by a longitudinal bar C, extending the entire length of the bed and secured to each of the slats. The springs D are of the usual coiled form, and are secured at their lower ends to the slats in any desired manner. The springs are connected transversely and longitudinally by the coil-spring links E, having their opposite ends secured to the upper coils of the adjacent springs D, as clearly shown. The said springs are connected diagonally, and are also connected to the head and foot boards by the springs F and the angular loops G. The said loops G are arranged at the centers of the spaces between four adjacent springs D, and the spring-links F have their ends secured to the said loops, at the corners of the same, and their outer ends secured to the bed-springs and the head and foot rails. The bed-springs are further connected and braced by means of the longitudinal securing-wires H, which have their ends secured to the head and foot rails and their intermediate portions interlaced through the outer bed-springs, and are provided near their ends with the coils I, so that they will be somewhat elastic and be thereby permitted to yield to the weight of the person on the bed. These wires may be secured to the bed-springs by means of the rings or collars J, fitted around the said wires and the coils of the bed-springs. The springs are further

braced by the securing-wires K, having their ends fastened to the side rails and their intermediate portions passed through the bed-springs, the portions of said wires between two adjacent springs being connected with the side rails by the spring-links L, which have their lower ends secured to the side rails and their upper ends engaging the securing-wires. The head and foot rails M N are supported upon the side rails B, and the longitudinal bar C by the spring-braces O, which have their lower ends securely fastened to the said side rails and central bar and their upper ends securely fastened to the head and foot rails. The intermediate portions of these foot-braces are carried upward and then outward, so that the said head and foot rail will be allowed to yield somewhat to the weight on the bed in a downward direction, but will be effectually prevented from moving inward toward the center of the bed and thereby permitting the central portion of the bed to collapse. This result is further insured by the employment of the chains P, which have their lower ends secured to the end slats and their upper ends secured to the ends of the head and foot rails.

From the foregoing description it will be seen that I have provided a spring-bed which is strong but simple in its construction and which will possess great durability. The several bed-springs are efficiently connected, so that while they are permitted to yield to the weight on the bed they will be prevented from swaying laterally in any direction, and the shape of the bed is consequently maintained. The spring-links F will at all times exert a direct pull on the bed-springs, as their inner ends are secured to the angular loops at the corners of the same, and will consequently be prevented from slipping on the said loop.

Special stress is placed on the longitudinal connecting-wires arranged at the side of the bed. These wires secure the outer bed-springs to the bed-frame and also connect them with each other, so that they will be most effectually prevented from collapsing, and the bed consequently prevented from spreading over the sides of the frame. These springs, furthermore, are sufficiently elastic to yield to



the weight which is placed on the central portion of the bed, so that the bed will be exceedingly easy and comfortable.

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

1. The combination, with the head and foot rails, the side rails, and the bed-springs, of the brace-wires interlaced with the bed-springs and having their ends secured to the head and foot rails, and the connecting-wires having their ends secured to the side rails and their intermediate portions engaging the bed-springs, as set forth.

2. The combination, with the head and foot rails and the bed-springs, of the longitudinal brace-wires having their ends secured to the head and foot rails and provided near their ends with the coils I, and the rings connecting the brace-wires to the bed-springs, as set forth.

3. The combination of the bed-frame, the spring-rods secured thereto and projecting upward and outward therefrom, the head and

foot rails secured to the upper outer ends of the said rods, the longitudinal brace-wires connecting the head and foot rails and having coiled springs in their bodies, and the chains secured to the frame and the head and foot rails, as set forth.

4. The combination, with the head and foot rails, the side rails, and the bed-springs, of the brace-wires interlaced with the bed-springs and having their ends secured to the head and foot rails, the connecting-wires engaging the bed-springs and having their ends secured to the side rails, and the spring-links having their lower ends secured to the side rails and their upper ends engaging the connecting-wires between the bed-springs, as set forth.

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

GEORGE E. MILLER.

Witnesses:

PHILETUS A. WALDRON,  
CHARLES L. TAFT.