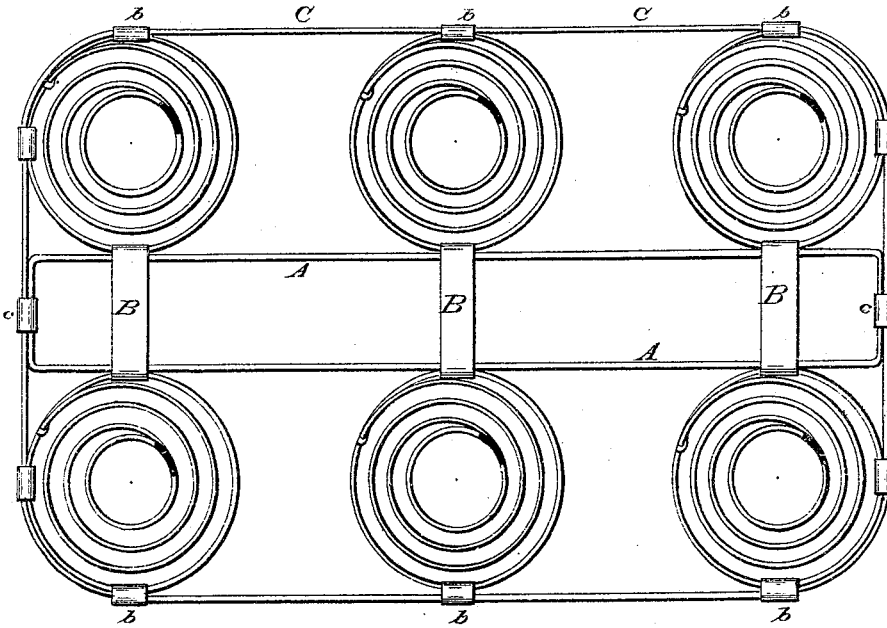


C. C. ALLEN.  
SPRING BED.

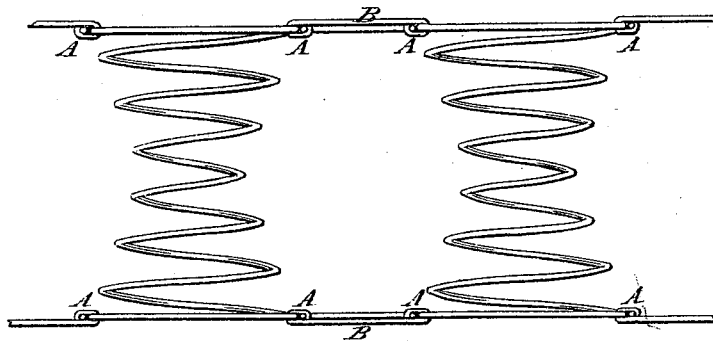
No. 184,568.

Patented Nov. 21, 1876.

*Fig. 1.*



*Fig. 2.*



*Attest:*  
*Charles Minnau*  
*W. Seely*

*Inventor:*  
*Chas. C. Allen.*  
*by Geo. W. Dyer*  
*Atty.*

# UNITED STATES PATENT OFFICE.

CHARLES CURTIS ALLEN, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN SPRING-BEDS.

Specification forming part of Letters Patent No. 184,568, dated November 21, 1876; application filed August 11, 1876.

*To all whom it may concern:*

Be it known that I, CHARLES CURTIS ALLEN, of San Francisco, in the county of San Francisco and State of California, have invented an Improvement in Spring-Beds; and I do hereby declare that the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

The object of my invention is provide a spring-bed with a less number of springs than is ordinarily employed, that will be less liable to become impaired by use. It consists, mainly, of a right-angle parallelogram of steel wires placed between every two rows of springs composing the bed at the top and bottom.

The parallelograms are clipped to the upper and lower coils of the springs by bands, which extend across the parallelograms.

An endless steel-wire rim extends around the outer edges of the top and bottom coils of the spring, and these are clipped to the springs by short metal clips, all of which will hereinafter more fully appear.

Referring to the drawings, Figure 1 is a top view of my invention. Fig. 2 is an enlarged view of a portion of the bed, showing the manner of connecting the springs together.

A represents the parallelogram, which is bent at right angles at both ends, and placed longitudinally between every two rows of springs, between the top and bottom coils, composing the bed from end to end. A flat clip, B, passes over the parallelogram at every point where they come in contact with the springs, and is bent around the coil of the springs and the arms of the parallelogram,

which unites them firmly together. Small indentations are made in the arm, so that the clips will not move or slip from their positions. An endless steel-wire frame, C, is placed around the edges of the outer rows of coils at the top and base, and these frames are clipped to the springs by clips or clamps *b b*, and two of these clips are employed, one each at the upper and lower coils of the end springs, and one for the intermediate coils.

The ends of the parallelograms are also clipped to the wire frames by clips *c c*, as shown. By this means I am enabled to construct a spring-bed with about one-half the number of springs usually employed, the parallelograms taking the place, to a great extent, of the spiral springs. I also do away with the use of wood entirely in constructing my frame, and provide a desirable bed of great utility, and one that is readily upholstered.

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

1. In combination with the parallelograms A, the clips or clamps B B, substantially as and for the purpose set forth and described.

2. In a bed-bottom, the combination, with the spiral springs, of the parallelograms A, clips B, wire frame C, and clips *b*, constructed and arranged substantially as described and shown.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 27th day of July, 1876.

CHAS. CURTIS ALLEN. [L. S.]

Witnesses:

C. W. M. SMITH,  
PHILIP MAHLER.