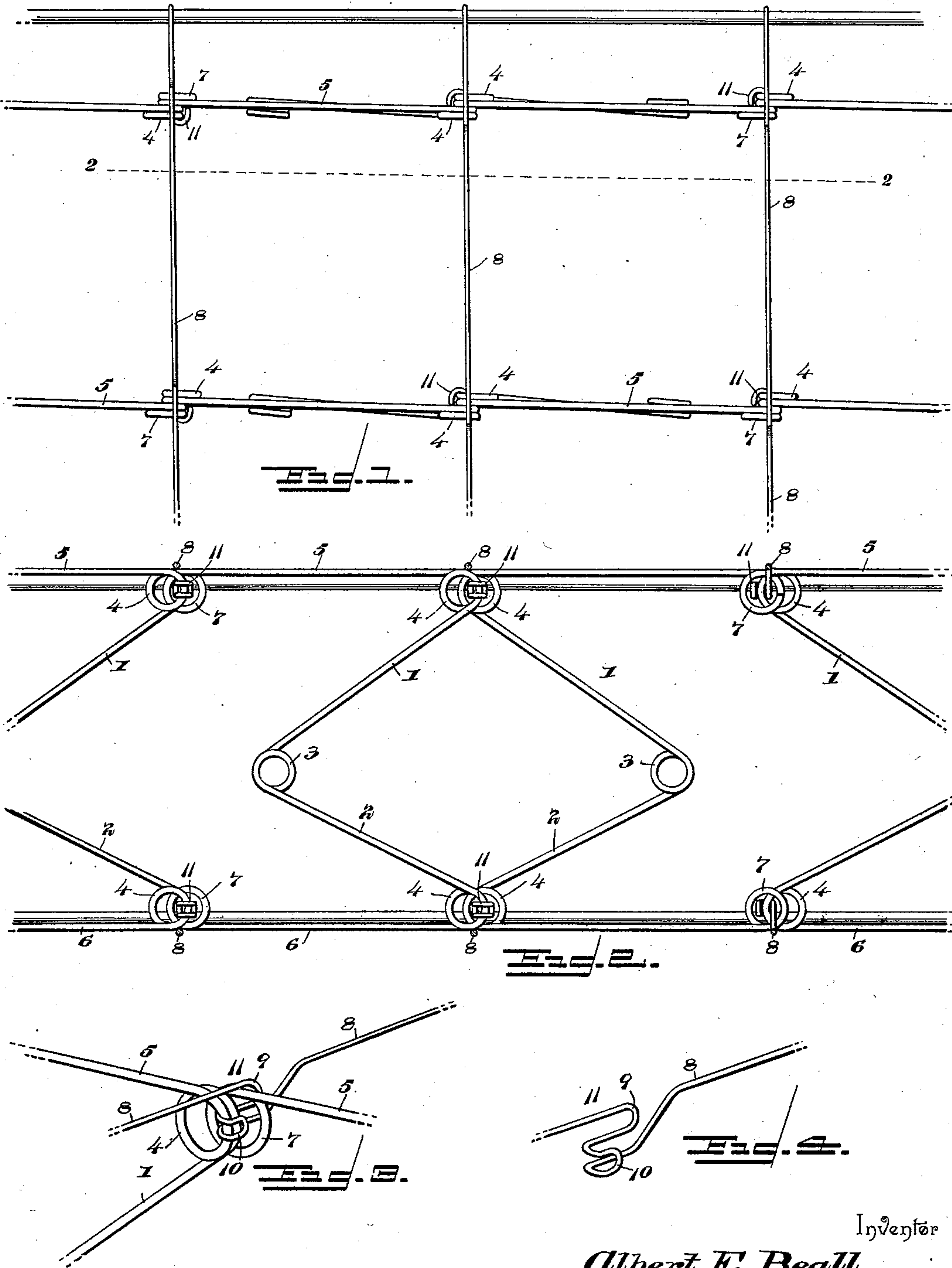


(No Model.)

A. E. BEALL.  
BED SPRING.

No. 540,776.

Patented June 11, 1895.



Inventor

Albert E. Beall

Witnesses

*E. H. Stewart*  
*[Signature]*

By *his* Attorneys,

*C. A. Snow & Co.*

# UNITED STATES PATENT OFFICE.

ALBERT E. BEALL, OF HUBBARD, IOWA.

## BED-SPRING.

SPECIFICATION forming part of Letters Patent No. 540,776, dated June 11, 1895.

Application filed March 30, 1895. Serial No. 543,865. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT E. BEALL, a citizen of the United States, residing at Hubbard, in the county of Hardin and State of Iowa, have invented a new and useful Bed-Spring, of which the following is a specification.

My invention relates to bed springs, and particularly to spacing wires or braces employed for holding the parts of contiguous springs in their proper relative positions, the object in view being to provide a simple and efficient device of the class named which may be applied with facility and which will hold the springs in their proper positions without interfering with the freedom of movement thereof, the connections between said wires or braces and the springs being noiseless in use.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a plan view of a portion of a spring-bed constructed in accordance with my invention. Fig. 2 is a partial longitudinal section of the same on the plane indicated by the line 2 2 of Fig. 1. Fig. 3 is a detail view, in perspective, of a joint between one of the spacing wires or braces and the connected portions of the springs. Fig. 4 is a detail view, in perspective, of one of the spacing wires or braces.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

I have shown my present invention as applied to the form of spring illustrated in my former patent, No. 514,898, granted February 20, 1894. Each spring comprises angularly-disposed upper and lower arms 1 and 2 connected by an interposed integral coil 3 and having terminal coils 4, and upper and lower parallel extensions 5 and 6 which extend longitudinally of the bed-bottom and terminate, respectively, in coils 7. This arrangement brings the coils 7 of one spring contiguous to the coils 4 of the adjacent spring, and the object of my present invention is to provide

means for connecting said coils 4 and 7 and at the same time bracing the same laterally to prevent deflection. The means which I employ for this purpose are the spacing wires or braces 8 provided at suitable intervals corresponding with the intervals between the series of springs in the bed-bottom with contiguous hooks 9 and 10 disposed, respectively, in vertical and horizontal planes and formed by loops 11 which are integral with and arranged at intermediate points of the spacing wires or braces. The hook 9 is formed between the upper side of the loop and the contiguous portion of the spacing wire or brace by bending said loop in a direction parallel with said contiguous portion of the wire or brace, and the hook 10 is formed by bending the extremity of the loop upon itself, as shown clearly in Fig. 4.

The hook 9 is engaged with one of the contiguous coils of the springs. The hook 10 is engaged with the other of said coils, and the shank of said hook 10 passes through both of the coils, and by forcing or bending the hook 10 down upon the coil with which it is engaged the joint may be tightened sufficiently to prevent rattling and insure the proper relative positions of the parts without interfering with the vertical movement of the connected coils when in use.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having described my invention, what I claim is—

1. A spacing wire or brace for spring bed-bottoms, the same being provided at intervals with integral loops arranged approximately parallel with the contiguous portions of the wire or brace and bent upon themselves at their extremities to form contiguous hooks 9 and 10 arranged, respectively, in vertical and horizontal planes, substantially as specified.

2. In a spring bed-bottom, the combination with springs having contiguous coils, of spacing wires or braces provided at intervals with contiguous hooks 9 and 10 engaging said coils,



respectively, the hooks being formed by loops  
extended approximately parallel with the  
wires or braces and doubled upon themselves  
at their extremities, whereby the intermediate  
5 portion of the loop extends through both of  
said contiguous coils, substantially as speci-  
fied.

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

ALBERT E. BEALL.

Witnesses:

J. K. MILNER,

C. F. SKELLENGER.