

W. B. JUDSON.

Spring-Coupling for Mattresses, Seats, &c.

No. 134,893.

Patented Jan. 14, 1873.

Fig. 1.

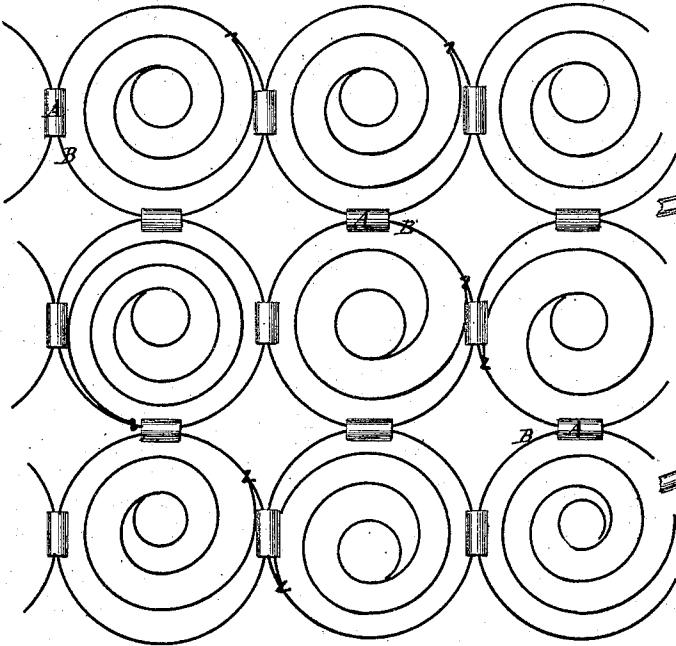


Fig. 2.

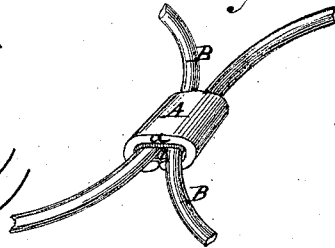


Fig. 3.

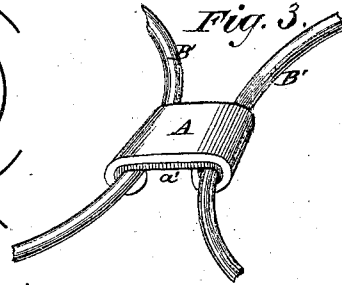


Fig. 4.



Fig. 5.

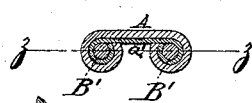


Fig. 6.

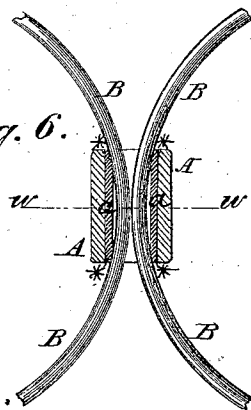
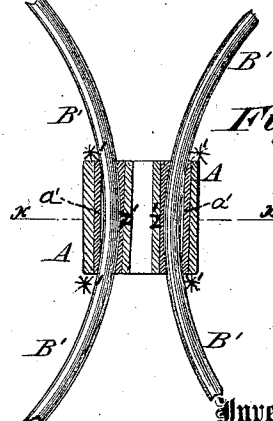


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM B. JUDSON, OF NEW YORK, N. Y.

IMPROVEMENT IN SPRING-COUPPLINGS FOR MATTRESSES, SEATS, &c.

Specification forming part of Letters Patent No. 134,893, dated January 14, 1873.

To all whom it may concern:

Be it known that I, WILLIAM B. JUDSON, of New York city, in the county and State of New York, have invented a new and useful Improvement in Spring Couplings for Mattresses, Seats, and other purposes, of which the following is a specification:

Referring to the drawing which forms a part of this specification, and on which the same letters of reference indicate corresponding parts, Figure 1 is a plan view of a portion of a complete mattress, showing the application of my improvement. Fig. 2 is a detached perspective view of my improved loop or clamp; Fig. 4 is a cross-section of the same; and Fig. 6, a horizontal section of the same. Fig. 3 is a perspective view of a modification of my improvement; Fig. 5, a cross-section of the same; and Fig. 7, a horizontal section of the same.

This improvement relates to that class of springs known as spiral or helical springs, of which mattresses, seats, &c., are composed, and in which such springs are ordinarily combined in series. The several springs composing the series are ordinarily fastened together by cords which are twined around the conjoining rims or upper and lower spirals of each spring, or by metallic loops or clamps.

In the use of metallic loops or clamps difficulty has heretofore been encountered in providing a fastening that will firmly gripe and hold fast upon the springs without slipping. When slippage of the loops or clamps takes place the loops are displaced, and the bed or seat becomes loose, rickety, and noisy; the slippage is therefore highly objectionable. Narrow loops have heretofore been used, and in order to overcome the objection just mentioned it has been common to make an indent or recess in the circular portion of the springs, which recess has a straight portion of wire on which the fastening loop turns, and also shoulders to prevent the slippage of the loop from its proper position. The formation of these recesses and shoulders is a matter of some difficulty and expense.

The object of my improvement is to provide a loop or clamp that shall firmly unite the springs, and prevent slippage of the loops without the use of recesses, shoulders, or other deviation from the ordinary circular form of springs, which is the easiest and cheapest form in which they can be manufactured.

In carrying out my improvement I provide

a metallic clamp or loop of any suitable malleable metal capable of being bent into the form or position desired, and shown at A. This clamp or loop is to be proportioned in width to the diameter or circle of the springs to which it is applied, and is to be of such width that when it is compressed upon the springs B the said loop or clamp will firmly bind at its two extremities upon the inner edges at * of the springs B, while the convex backs of the two springs will be brought in contact and firmly held pressed together. The elongated form of the loop or clamp A, as compared with the diameter of the circle of the springs, thus prevents all slippage of the loop, and dispenses with the use of all other devices for the prevention of slippage. A packing of leather, *a*, is introduced when desired within the loop or clamp.

When it is desired to space or separate the springs by an interval of space I provide the form of clamp A, shown in Figs. 3, 5, and 7, which may be termed a double-loop clamp, the extremities of which turn over separately upon separate springs B' as shown. Each end of such loop or clamp A binds upon the inner edges of the spring B at *, while the convex part of the spring is grasped by the outer lip of the loop at *z' z'*. A packing, *a'*, may be used in connection with these double loops, if desired.

It is obvious that if the springs were connected by a wire-loop or a narrow loop there would be slippage of the fastening, which it is the object of my invention to prevent, and which object I accomplish by proportioning the width of the clamp to the degree of curvature of the rims of the springs. The larger the diameter of the springs the greater must be the width of the clamps in order to obtain a secure fastening.

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

The combination, herein described, of helical springs of mattresses with a metal plate, A, of a width proportioned to the diameter of the spring, and bent at its ends around the wires of the springs, substantially as and for the purpose specified.

WILLIAM B. JUDSON.

Witnesses:

T. B. MOSHER,
F. C. BEACH.