

No. 681,748.

Patented Sept. 3, 1901.

C. G. SMITH.  
BED SPRING.

(Application filed Oct. 24, 1900.)

(No Model.)

Fig. 1.

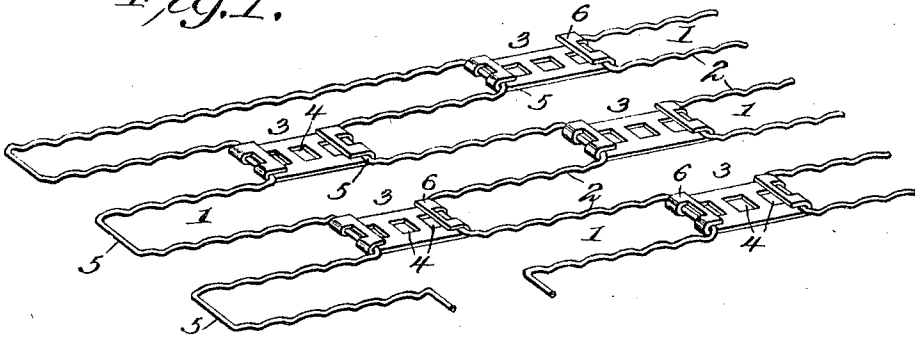


Fig. 2.

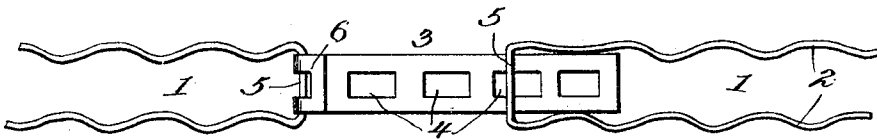


Fig. 3.

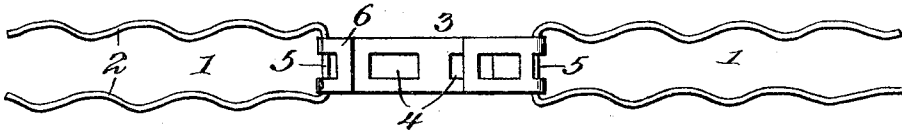


Fig. 4.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CHARLES G. SMITH, OF LAKELAND, MICHIGAN.

## BED-SPRING.

SPECIFICATION forming part of Letters Patent No. 681,748, dated September 3, 1901.

Application filed October 24, 1900, Serial No. 34,193. (No model.)

### *To all whom it may concern:*

Be it known that I, CHARLES G. SMITH, a citizen of the United States, residing at Lakeland, in the county of Livingston and State of Michigan, have invented a new and useful Bed-Spring, of which the following is a specification.

This invention relates to bed-springs, and particularly to means for connecting spring or yielding sections or portions thereof; and the object of the same is to provide a simple and effective device for adjustably attaching the sections or portions in a strong and durable manner, whereby the tension of the springs as an entirety can be regulated to suit the requirements of different users and also provide for the replacement of any part by another in the event of injury or breakage.

The invention consists of the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a series of bed-spring sections shown attached by the improved connector. Fig. 2 is a plan view of a portion of two sections, showing the one terminal of the connector attached to the end of one section and the opposite terminal in position for securement to the end of the other section. Fig. 3 is a view similar to Fig. 2, showing the attachment of the connector completed and showing one end of the latter bent over a greater distance than the connectors shown by Fig. 1. Fig. 4 is a longitudinal vertical section of two of the sections and a connector, showing the manner of increasing the tension of the two sections.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The spring fabric is composed of a series of wire sections comprising a single wire bent zigzag, forming loops 1, having one end closed and the opposite end open, said loops being alternately arranged, so that the open ends of one set of loops come between the closed ends of the other set of loops. The side members 2 are crimped or waved, thereby permitting the loops to have a linear spring action, so as to expand and contract. The crimps or waves are in the plane of the fab-

ric or bed-bottom to provide an extended surface for the mattress or other covering and also to prevent the strain coming upon the crests or apices of the crimps and destroying their elasticity, all of which is clearly disclosed in Patent No. 609,842, granted to me August 30, 1898. In the present construction the engaging hooks of the device shown by said patent are dispensed with, and the latter hooks are replaced by connectors 3, formed of elongated flat or suitable sheet-metal strips having sufficient strength to resist the strain brought to bear thereon, and each provided with a series of openings 4, extending longitudinally thereof for the insertion of a suitable implement to turn over one end in primarily completing the application of the improved device and in changing the adjustment of the same.

The portions of the loops 1 which are connected and contiguously arranged have straight transverse end bars 5, and in applying each connector thereto the one end of the latter is first bent into a hook 6 of comparatively limited extent and caught over one bar 5, and the opposite extremity of the connector will then be disposed under the opposite bar 5, as clearly shown by Fig. 2. By inserting any suitable implement having a slightly-hooked end through one of the openings 4, in accordance with the tension desired and from the bottom and bracing it against the bar to which the final attachment is to be made the unattached end of the connector is bent over the bar and the desired or requisite tension on the loop so connected simultaneously acquired. In changing the adjustment, as indicated by dotted lines in Fig. 4, the finally-attached extremity of the connector, as just set forth, is opened or bent back and subsequently rebent at a different point by the same means to produce a longer or shorter hook, as the case may be, and thereby users of the improved bed-spring can regulate the tension of the same to suit their individual tastes.

The improved device is simple and inexpensive in its nature and is easily and readily applied. Moreover, the application and adjustment can be made without requiring the assistance of a skilled mechanic to obtain the result sought, and though the simplest and

preferred form of the improved device has been shown and described; it is obviously apparent that changes in the shape or general contour, as well as the size and proportions, can be resorted to without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is—

The combination with a bed-bottom comprising a series of loops having parallel sides and closed ends in planes at right angles to the sides and spaced apart in longitudinal alinement, of elongated flat metal connectors having the full transverse extent of the ter-

minals bent into hooks which engage the closed ends of the said loops, the connectors having the ends freely bendable in a longitudinal direction thereover to regulate the tension on the loops and also provided with apertures throughout the length thereof for the insertion of a bending implement.

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

CHARLES G. SMITH.

Witnesses:

C. A. WHITE,  
M. S. IRVINE.