

(No Model.)

H. WARNER.
BED BOTTOM OF SPRINGS.

No. 453,850.

Patented June 9, 1891.

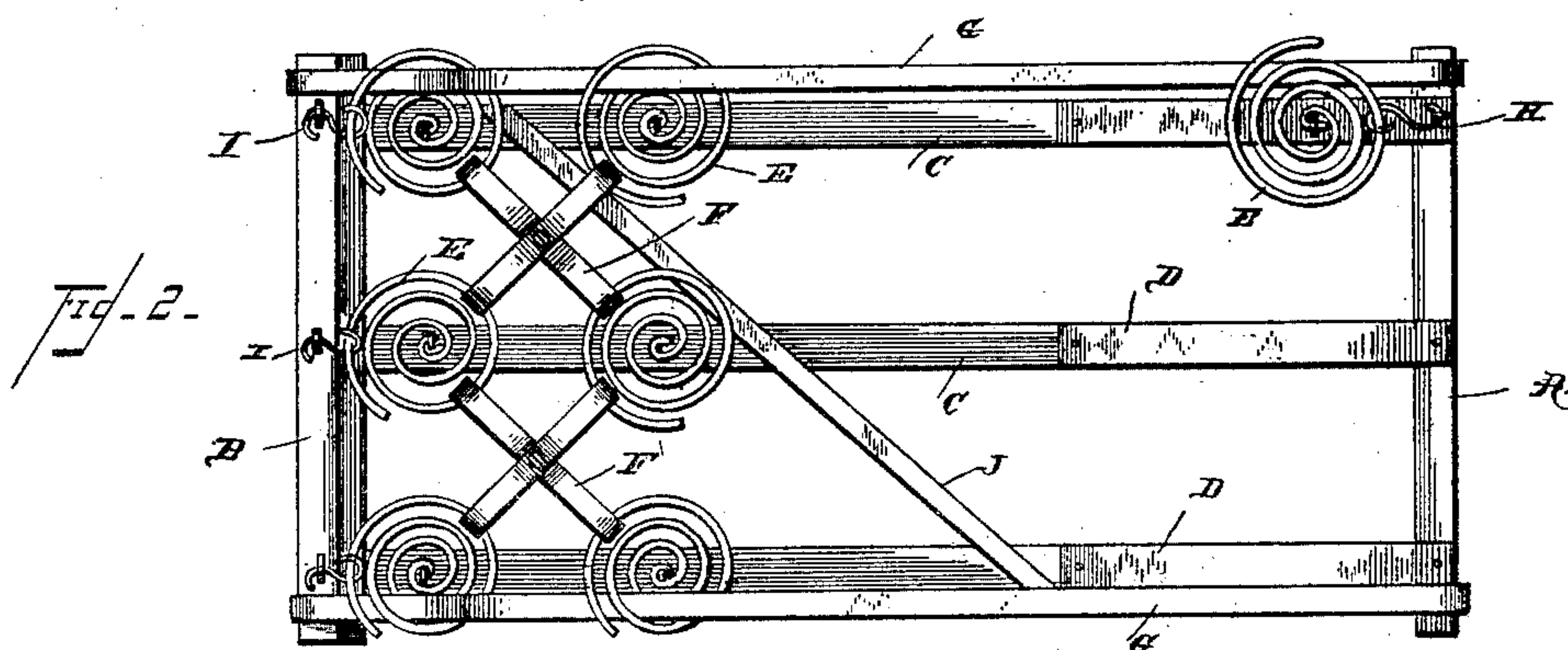
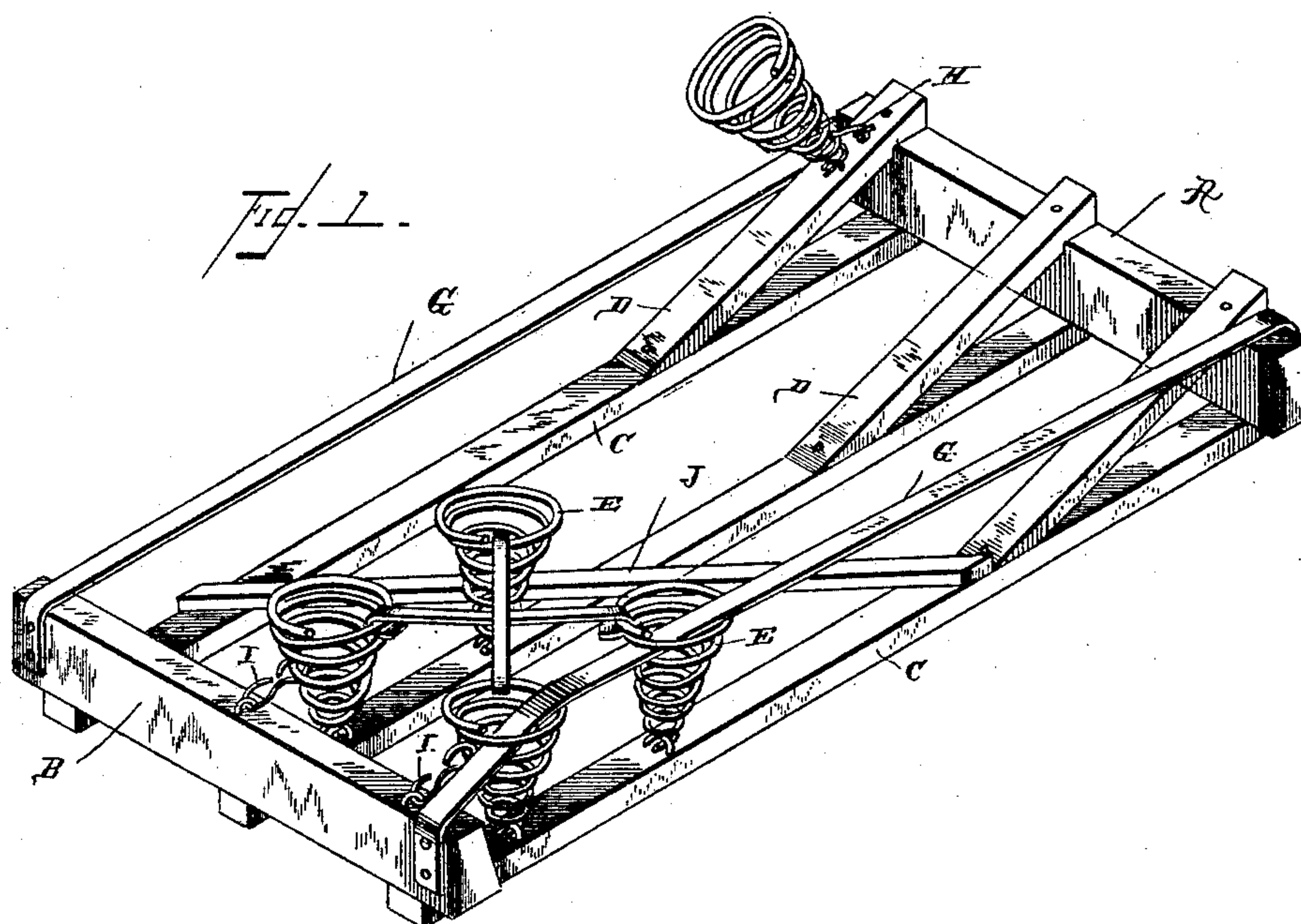
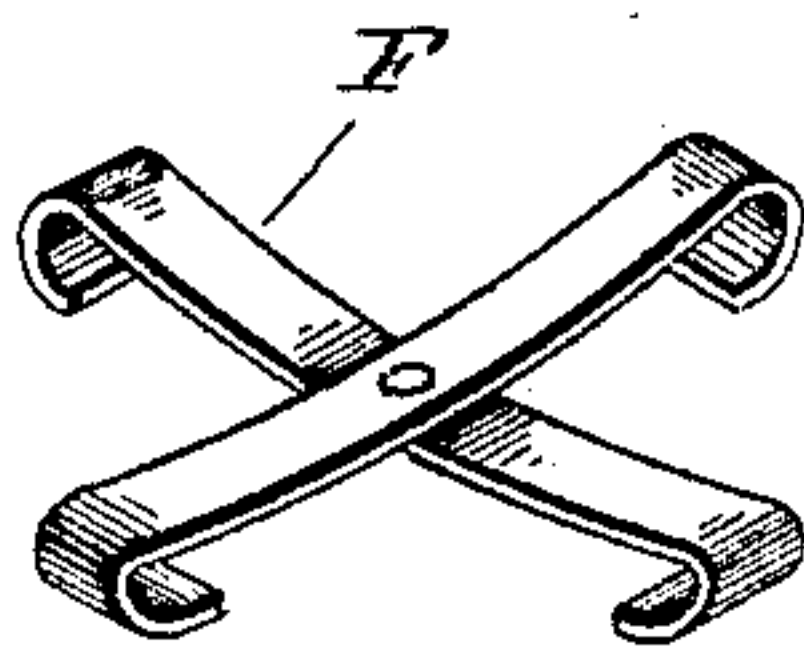


Fig. 3.



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UNITED STATES PATENT OFFICE.

HARVEY WARNER, OF THREE MILE BAY, NEW YORK.

BED-BOTTOM OF SPRINGS.

SPECIFICATION forming part of Letters Patent No. 453,850, dated June 9, 1891.

Application filed July 27, 1889. Renewed April 14, 1891. Serial No. 388,927. (No model.)

To all whom it may concern:

Be it known that I, HARVEY WARNER, a citizen of the United States, and a resident of Three Mile Bay, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Spring Bed-Bottoms; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved spring bed-bottom. Fig. 2 is a plan view, and Fig. 3 is a detail view, of the spring-coupling.

Like letters of reference denote corresponding parts in all the figures.

My invention has relation to improvements in spring bed-bottoms; and it consists in providing a device of this character wherein the springs toward the head of the frame are on a higher plane than the springs at the lower portion thereof; furthermore, in providing a peculiar coupling for the springs, whereby the lateral stability of the springs is increased and the springs rendered self-sustaining, and, furthermore, in providing a construction whereby the series of side springs are prevented from being depressed unevenly where the entire weight of the person occupying the bed is upon the same.

With these ends in view it consists in the combination, with a bed-frame, of slats so arranged as to bring the springs toward the head of the frame on a higher plane than the springs toward the lower portion thereof; further, in the combination, with a bed-frame, of a series of springs connected together by coupling devices, consisting of obliquely-crossed strips provided with bent or hooked ends; and, further, in the combination, with the side series of springs, of flexible supporting-strips adapted to overcome the tendency of lateral pressure on said springs to cause uneven depression, and, furthermore, in various details of construction wherein the objects are attained.

Referring to the accompanying drawings, the letters A B represent the head and foot

portions of the bed-frame, respectively, connected by means of longitudinal slats C, secured to the under sides thereof. Inclined strips D extend from the upper part of the head-piece of the frame and are secured at their lower ends to the longitudinal slats. Secured to the longitudinal slats and to the inclined strips are the usual coiled or helical springs E, connected together by means of coupling devices F, consisting of two pieces crossed obliquely, the ends thereof being bent so as to engage the top coil of the springs.

Flexible supporting-strips G G are secured to the head and foot pieces of the frame, said strips passing under and then over the upper coil of the side springs arranged upon the longitudinal slats, or the reverse arrangement may be employed—viz., the strips passing first over the upper coils and then under, as may be desired. It will be seen that the side springs upon the inclined strips are not supported in the same manner by the flexible strips, but that said strips simply pass beneath the lower coils of the springs. This is rendered necessary by the peculiar construction of the bed-frame employed by me, and as the same necessity which suggests the employment of braces for the lower springs, does not exist in case of the head springs where the pressure is much less severe, the bracing of these head springs may be readily dispensed with without in the least detracting from the advantages of my device. Furthermore, it is often desirable to have more yielding motion toward the head of the bed, whereby the comfort of the person occupying the bed is greatly increased. It is, however, evident that when a bed-bottom is employed in which the springs are all arranged on the same plane the flexible supporting-strips may be made to act upon all of the side springs, whereby the even resiliency or recoil of the said springs is maintained.

The springs at the upper and lower portions of the bed-bottom are braced by means of links H I, provided with hooks on the ends thereof for the purpose of engaging the coils of said springs, links H being secured to the slanting strips D and links I to the foot-piece of the frame of the bed. I also provide the

longitudinal slats C with a brace rod or strip J, in order to enable them to better withstand the pressure and strain exerted.

It will be seen that the springs are uniformly braced throughout, thus securing an even depression and recoil thereof. The arrangement is also exceedingly simple and little liable to get out of order. A further great advantage in my device is the novel arrangement of the head portion of the bed, whereby the springs are brought on a higher plane than the springs at the lower portion thereof, whereby, if found desirable, the use of a pillow may be entirely dispensed with. It will further be seen that the end links H I are made adjustable—that is to say, may engage the springs at either upper or lower portions—thereby regulating the recoil or resiliency of said springs.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a spring bed-bottom, the combination, with the frame consisting of a series of longitudinal slats and connecting end transverse strips, of springs secured to said longi-

tudinal slats, obliquely-crossed braces having bent ends, said bent ends adapted to engage with the top coils of the springs so as to connect them in clusters of four, and flexible side supporting-strips secured to the end and head portions of the frame and passing beneath one side of the top coil of the side springs, and then over the opposite side of said coil, substantially as set forth.

2. The combination of the frame, consisting of the head and foot portions, and the longitudinal slats, said foot portion being provided with links having hooks upon the ends thereof, the inclined strips provided with links having hooks upon the ends thereof, the springs, the obliquely-crossed braces having bent ends, the flexible supporting-strips secured to the end and head portions of the frame, substantially as set forth.

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

HARVEY WARNER.

Witnesses:

JOHN L. SCHUYLER,

JOHN L. TAYLOR.