

(No Model.)

D. EDGAR.
SPRING BED BOTTOM.

No. 469,836.

Patented Mar. 1, 1892.

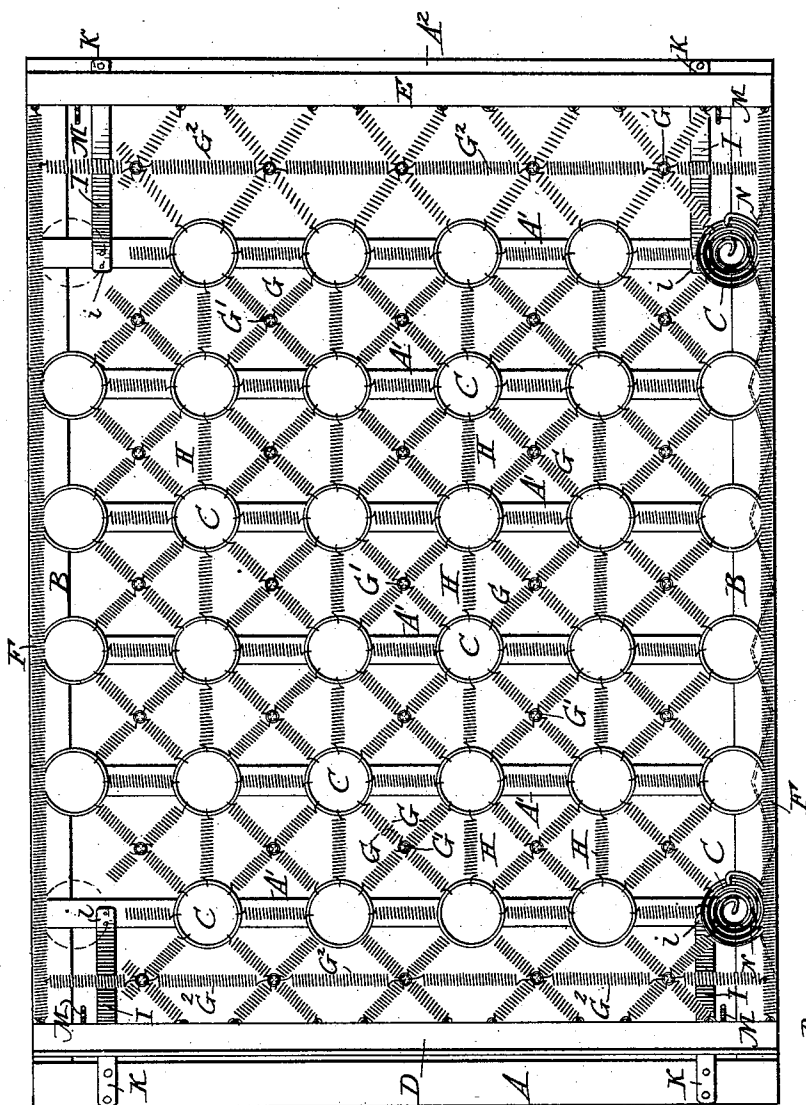


Fig. 1



Fig. 3

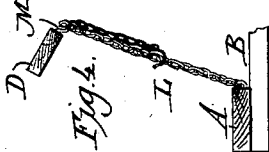


Fig. 4

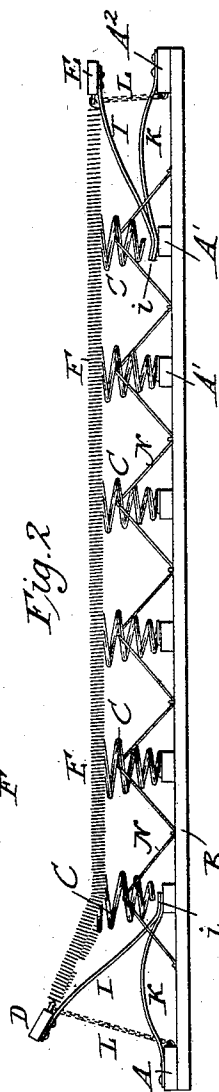


Fig. 2

Witnesses
Samuel P. Hollingsworth
Ballus DeLong

Inventor
Daniel Edgar
by his Attorneys
Baldwin, Davidson & Night

UNITED STATES PATENT OFFICE.

DANIEL EDGAR, OF ADRIAN, MICHIGAN.

SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 469,836, dated March 1, 1892.

Application filed August 18, 1891. Serial No. 403,016. (No model.)

To all whom it may concern:

Be it known that I, DANIEL EDGAR, a citizen of the United States, residing at Adrian, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Spring Bed-Bottoms, of which the following is a specification.

My invention especially relates to spring bed-bottoms of the class in which coiled or helical springs are secured vertically to a supporting-frame and connected by horizontal bracing and supporting-springs at their upper ends.

The object of my present invention is to provide an improved head-piece, which is supported by springs of an improved construction and flexibly connected to the body-springs without the use of a hinge. In this connection my invention also consists in improved means for supporting and adjusting the main body-springs of the bed to compensate for the adjustment of the head-piece.

In the accompanying drawings, Figure 1 is a plan view of a spring bed-bottom embodying my invention. Fig. 2 is a side elevation thereof, and Figs. 3 and 4 show details of construction.

The frame is shown as consisting of slats A A' A², connected at their ends by longitudinal slats B. The supporting-springs C, which may be of any approved form and construction, are arranged on the slats A' at equal distances apart. Any desired number of supporting-springs may be employed.

At opposite ends of the bed-bottom are the head and foot pieces D E. When these are on the same plane as the top of the supporting-springs, they are in position over the slats A and A².

Coiled or helical springs F extend on opposite sides of the bed-bottom from the head to the foot piece, to which they are connected. These springs are connected by means of twisted wires *f* to the tops of the outside rows of supporting-springs C. These connecting-wires *f* connect with the under sides of the border-springs F, so that there is no danger of their engaging with the bedding. The tops of the supporting-springs are connected by means of short coiled or helical springs G, arranged in groups of four between a group of four supporting-springs and connected at

their inner ends to rings G'. The head and foot rows of supporting-springs are connected to the head and foot cross-pieces by the coiled springs G and rings G', and these rings are connected with each other and to the border-springs by means of springs G². Springs H may also be employed to connect adjacent supporting-springs, as indicated.

It will be observed that the head and foot pieces are flexibly connected with the body-springs, and, when free, assume a position above the level of the springs without the use of a hinge, as shown in the drawings.

The head-piece and the foot-piece are similar in construction and operation. Each of them is secured to flat curved springs I, having at their lower ends feet *i*, arranged over the end slats A'. Flat curved springs K are secured to cross-pieces A and A² and extend to the end cross-pieces A' beneath the feet of the springs I, to which they are secured. The springs K co-operate with the springs I and tend to raise the head and foot pieces above the level of the bed-bottom, which may be held in any desired position by means of adjusting devices or chains L, secured to the cross-pieces A and A² and engaging with hooks M on the pieces D and E. When the head-piece D is elevated, there is no strain on the springs, and the foot-piece may be released from the chains, so that all the springs will maintain their normal position; but when the head-piece is lowered and held by the chains against the force of the springs there is a tendency to pull the supporting-springs out of their normal position and there is more strain on some of the springs than the others. To compensate this the foot-piece is adjustable correspondingly with the head-piece, and in this way the tension on all the springs is maintained uniformly.

In operation the lower ends or feet of the springs I slide on the cross-pieces A', and thus relieve themselves from undue strain, keep the tension uniform, and also allow the head and foot cross-pieces to assume a horizontal position in line with the upper surface of the supporting-springs.

In order to sustain the supporting-springs C, I employ on opposite sides of the bed below the border-springs wires N, secured to the slats B and extending through the outside row

of supporting-springs about midway between their upper and lower ends. A bed-bottom thus constructed is not only simple, but it is durable, comfortable, and easily adjusted.

5 Although a number of small springs are employed to connect the upper ends of the supporting-springs, I find that such an arrangement is necessary in order to produce the greatest comfort and maintain uniform
10 elasticity throughout the bed-bottom.

I claim as my invention—

15 The combination, substantially as hereinbefore set forth, of a slatted frame, supporting-springs mounted thereon, springs connecting the supporting-springs at their upper ends, the head and foot cross-pieces, springs connecting them to the supporting-springs, the continuous border-springs connected to

the head and foot cross-pieces and to the supporting-springs, the flat springs I, secured to the head and foot cross-pieces, the springs K, secured at their outer ends to the frame and at their inner ends to the lower ends of the springs I, said springs K and I being disconnected from the frame at their inner ends and
25 free to slide, and the adjusting-chains for raising and lowering the head and foot cross-pieces without a hinge against the force of the springs.

In testimony whereof I have hereunto subscribed my name. 30

DANIEL EDGAR.

Witnesses:

C. H. DAVIDSON,
J. L. MITCHELL.