

(No Model.)

S. D. TUTTLE, Sr.  
SPRING BED BOTTOM.

No. 348,539.

Patented Aug. 31, 1886.

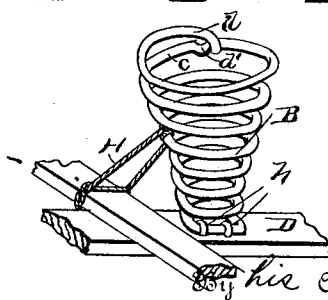
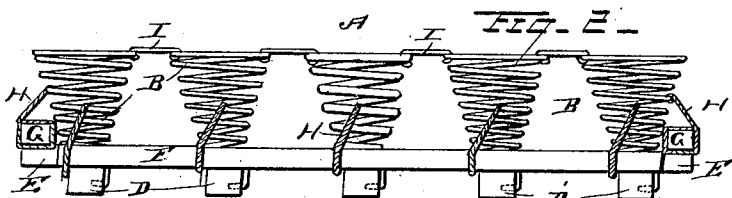
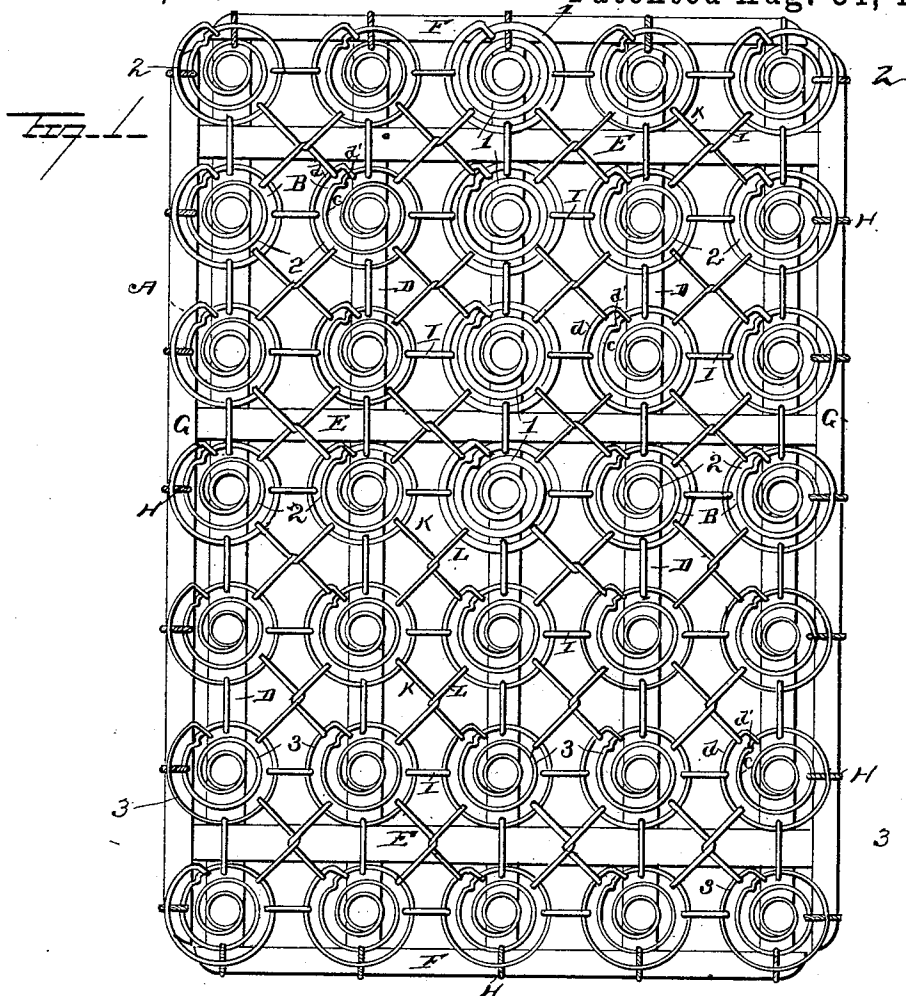


FIG. 3.

Fig. 4.



Witnesses

*W. J. Gill*

*H. Bernhard*

Inventor

*S. D. Tuttle Sr*

By his Attorneys

*C. A. Snow & Co*

# UNITED STATES PATENT OFFICE.

STERLING DECATUR TUTTLE, SR., OF EATON, OHIO.

## SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 348,539, dated August 31, 1886.

Application filed May 1, 1886. Serial No. 200,834. (No model.)

*To all whom it may concern:*

Be it known that I, STERLING DECATUR TUTTLE, Sr., a citizen of the United States, residing at Eaton, in the county of Preble and State of Ohio, have invented a new and useful Improvement in Spring Bed-Bottoms, of which the following is a specification.

My invention relates to an improved bed-bottom; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan view of a bed bottom embodying my invention. Fig. 2 is an enlarged view, in plan, of a portion of the bed-bottom, to more clearly show the construction of the parts thereof. Fig. 3 is an end elevation. Fig. 4 is a detached perspective view of one of the springs of the bed-bottom.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates a bed-bottom constructed and arranged in accordance with my invention. The bottom comprises a series of coiled springs, B, of peculiar form, and these springs B are arranged in longitudinal and transverse series of the bottom. The springs numbered 1 at the head of the bed-bottom are made of strong and stout wire to resist the heaviness of the load or weight of the person thereon, and the springs at the sides of the bed, numbered 2, are made of lighter and less strong wire than the series of springs numbered 1. The series of springs numbered 1 only extend half-way of the bed or toward the foot thereof, and the springs numbered 3 at the foot of the bed are made of wire of less strength and rigidity than the series of springs either 1 or 2.

It will thus be seen that the springs that comprise my bed-bottom are made of gradually-decreasing strength or rigidity from the head toward the sides and foot, and by this peculiar construction and arrangement of the springs I am enabled to equalize the weight of two persons of unequal heaviness when they occupy the bed, and prevent them from both rolling or sliding toward the center or middle of the bed, as is the case when the

springs are all made of one strength or rigidity.

The weaker springs at the sides of the bed are made of sufficient strength to withstand the weight and wear that occur during ordinary usage of the bed, and they give the occupants an easy and comfortable support, and the still weaker springs at the foot of the bed provide for the proper support of the legs and feet and prevent them from being elevated higher than the head of the occupant, which is very desirable in this class of devices.

Each of the springs is made helical shaped, and the upper coil of each spring is bent around the second coil or the coil adjacent thereto, the upper and second coils of the springs being lettered *c* and *d*, respectively. The second coil, *c*, of each of the springs is bent inwardly upon itself to provide a lip or detent, and the free end of the coil *d* is bent around the coil *c* in rear or to one side of the coil *c*, so that the free end of the coil *d* and the spring is prevented from longitudinal movement on the spring and to retain the tension of the spring from being slackened.

The springs of the bed-bottom are secured to longitudinal slats D, and these slats are connected and braced by transverse slats E, which are suitably secured thereto, thus forming an open frame for the support of the springs, said frame being made of any desired size to fit bedsteads of different sizes. The extremities of the longitudinal slats D of the frame are connected by transverse slats F, which are suitably secured thereto, and the ends of the transverse slats E are provided with longitudinal slats G, which are secured thereto by screws or other suitable means, and which lie above the plane of the slats E. To these slats F and G are connected bracing cords or wires H for the side and end series of springs of the bed-bottom. These cords or wires are doubled or bent around the slats F and G one or more times, and the free ends thereof are connected to one of the coils of wire of the helical springs to strengthen and brace the latter and prevent them from unduly leaning to one side under the weight of the occupant of the bed. The lower ends of the springs are each secured to the longitudinal slats D of the open bed-frame by means of two or more staples *h*,

which are driven into the slats and embrace the lower coil or wire of the spring, and the free ends of the springs are bent over the edges of the slats and inserted into the latter on one of the sides thereof, thus providing secure means for connecting the lower ends of the springs to the open frame of the bed.

Each of the springs is connected to the fellow spring adjacent thereto by means of a straight cross-link, I, that is bent around the upper coil of the springs, as shown, and the springs are further connected for strength and rigidity by cross-links K and L, which are connected together at their middle by bending or twisting them upon each other, as shown, the free ends of the links being bent around the upper coils of four springs that are arranged in juxtaposition to each other.

It will thus be seen from the foregoing description, taken in connection with the drawings, that by the peculiar arrangement of the light and strong springs I am enabled to equalize the weight of two persons occupying the bed at the same time, and that the legs and feet of the occupants are not elevated higher than the heads, that the coils *c* and *d* always occupy the same relative positions to each other whether the bed is occupied or not, and they are prevented from movement upon one another, and thus add rigidity and strength to the structure, and by means of the bracing-cords the springs at the sides and ends of the bed are prevented from undue strain and movement under the weight of the occupant.

Various slight changes in the form and proportion of parts may be made without departing from the principle of my invention.

By placing the longitudinal slats F upon the transverse slats D the bracing cords or wires act more directly upon the springs and at a short distance.

I am aware of Patent No. 264,468, in which is shown a bed-bottom composed of a series of strong springs at the top and main portion and the lighter and more flexible springs at the foot. My invention differs from this device in that the stronger series of springs, 1, are arranged at the middle of the bed, and the weaker springs, 2, on opposite sides of the stronger springs, while the more flexible springs are arranged at the foot, the entire series of springs throughout the bottom being connected by a straight and cross links. The advantage of having the stronger springs, 1, at the middle is that the occupants are prevented from moving toward the middle of the bed, which is very objectionable during the warm season, and the springs are braced and strengthened by the intermediate links.

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

In a bed-bottom, the combination, with the longitudinal slats D, the transverse slats E, secured on and above the longitudinal slats, the slats G, secured to the extremities of the transverse slats E and lying above the latter, the springs secured on the slats D E, and the cords or flexible connections doubled around the slats G one or more times and connected at their free ends to the springs between the ends thereof, substantially as described.

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

STERLING DECATUR TUTTLE, SR.

Witnesses:

WM. N. MOORE,  
JOHN H. SIGGERS.