H. TUCKER.
Spring Bed-Bottom.

No. 208,867. Patented Oct. 8, 1878.

Fig: 1.

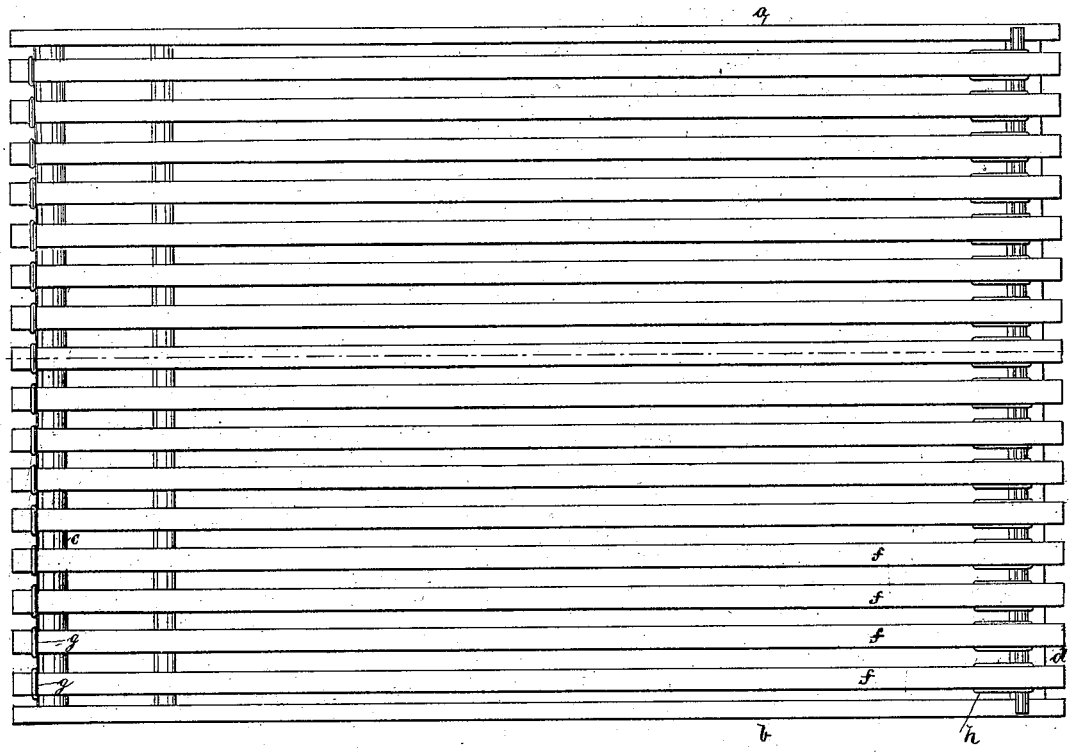


Fig: 2.

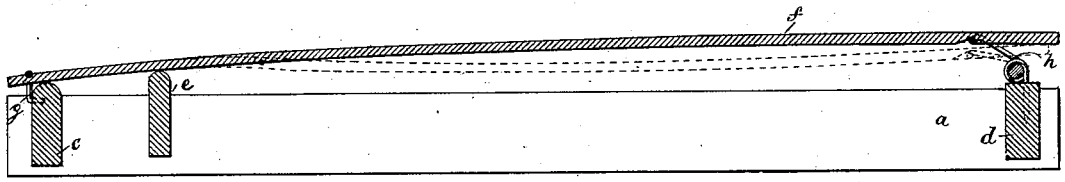


Fig: 3.

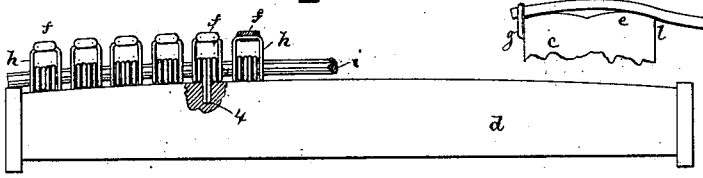
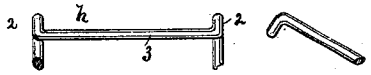


Fig: 5.

Fig: 4.



Witnesses.
L. F. Connor
N. E. Whitney.

Inventor.
Hiram Tucker
by Crosby & Gregory Attys

UNITED STATES PATENT OFFICE.

HIRAM TUCKER, OF NEWTON, ASSIGNOR TO BARTHOLOMEW W. WORLEY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. **208,867**, dated October 8, 1878; application filed July 29, 1878.

To all whom it may concern:

Be it known that I, HIRAM TUCKER, of Newton, county of Middlesex, State of Massachusetts, have invented an Improvement in Spring Bed-Bottoms, of which the following description, taken in connection with the drawing forming a part thereof, is a specification.

This invention relates to improvements in spring-beds of the class designated in United States Letters Patent No. 36,429, granted to me September 9, 1862. In that invention the slats are supported at the head by a rigid bar, and at or near the foot-rail by means of a rigid fulcrum-bar, and the slats are permitted to yield or sag between those points to conform to the shape of the body.

In this my present invention I have supported each slat independently at the head of the bed upon a spring, so that the entire slat, from the fulcrum-bar to its head end, may rise and fall under the action of a weight upon it, may spring or yield to the shape of the shoulder, which would not be the case if the head end of the slat were placed upon a rigid or unyielding support, and at the same time the slats, as in the old patent, conform to the shape of the person.

Slats rigidly connected at their head and foot ends by cross-bars have heretofore been used in connection with a yielding frame and a fulcrum-bar yielding with said moving frame. My invention differs from this in that the frame is rigid and unyielding, and the fulcrum-bar immovably fixed in said stationary frame.

Figure 1 represents, in top view, a spring bed-bottom constructed in accordance with my invention; Fig. 2, a longitudinal section thereof; Fig. 3, an end view of the head of the bed; Fig. 4, a detail, showing the slat-supporting end of the spring; and Fig. 5, a modification.

The side pieces, *a b*, of the bed-frame are connected together by the foot and head pieces *c d*, and near the foot-piece is the fulcrum-bar *e*, it serving as does the fulcrum-bar in my former patent.

Each slat *f*, at the foot end of the bed, is projected into a loop, *g*, connected with the foot-piece, and rests on the fulcrum-bar, and the head end of the slat rests upon a spring, *h*, preferably made so as to receive the slat between its elevated sides 2 2, a notch made in the slat hooking upon the cross-piece 3. These springs *h* are steadied and held by a rod, *i*, which extends through the eyes of the springs, the ends 4 of the springs entering the head-piece, as shown in Fig. 3.

The head ends of the slats, supported by the springs, may descend from the position shown in full lines, Fig. 2, until said slats meet the center or bar about which the ends of the springs move, so the slats at the head end of the bed will freely adapt themselves to the shape of the shoulders of the person using the bed; and between the springs and the fulcrum-bar the slats yield, as shown in dotted lines, to in a measure conform to the shape of the body, as in my former patent.

The springs *h*, applied under the head end of the bed, add very materially to the ease and comfort of the bed-bottom, making it far more elastic, self-adapting, and comfortable.

In this my invention, as so far described, the fulcrum-bar has been shown as separate from the foot-piece. The function and purpose of the fulcrum-bar are to support the slat at the foot of the bed some distance from its extreme end, where it is grasped between the loop *g* and foot-piece, so that the downward or central curve of the slat, when weight is placed upon it, terminates at a point near the fulcrum-bar, and from that point to the foot end of the slat the curve is in the opposite direction.

It is therefore obvious that the fulcrum-bar may form part of the foot-piece—as, for instance, in Fig. 5, where the foot-piece is shown as made wide enough to support the slat at its under side, so that the extreme foot end of the slat remains held up, and does not descend or bend down, as it would if the foot-bar were very narrow; and beyond the corner *l*, toward the head end of the slat, it may descend, as shown in dotted lines, but back of said corner it curves upward when under strain.

I claim—

In a bed-bottom, the slats *f*, each independ-

ently secured to the head-piece by a spring, as shown, and rigidly attached to the foot-piece *c*, in combination with a fulcrum-bar, *e*, rigidly and immovably fixed between immovable or unyielding portions *a b* of the framework near the foot of the bed, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HIRAM TUCKER.

Witnesses:
G. W. GREGORY,
N. E. WHITNEY.