No. 676,544. Patented June 18, 1901.

F. MARTIN.

BED.

(Application filed July 16, 1900.)

(No Model.)

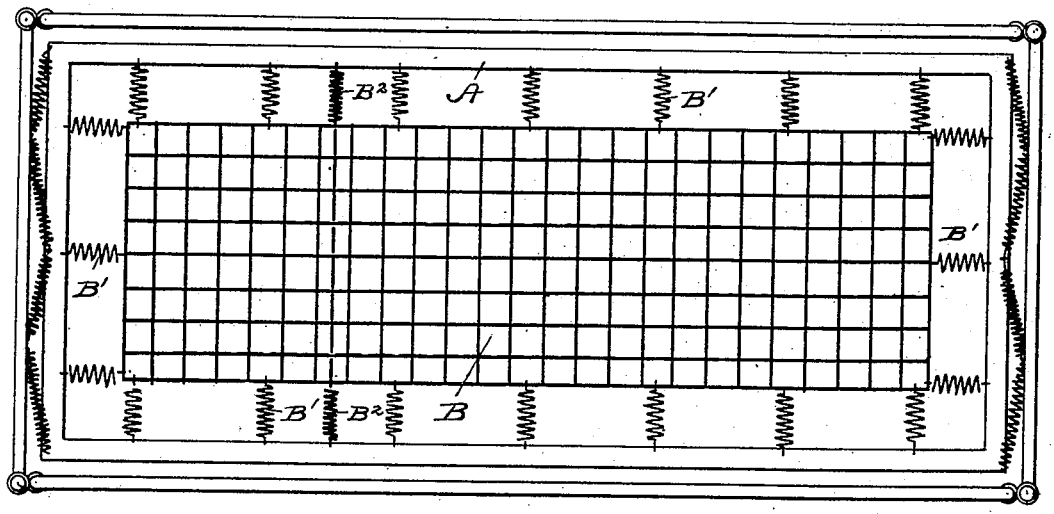

Fig. 1.

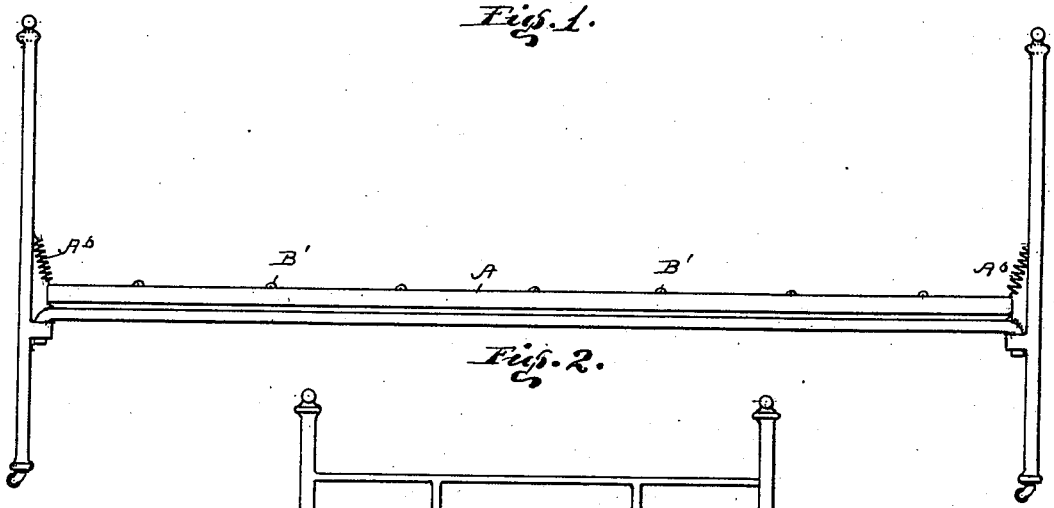

Fig. 2.

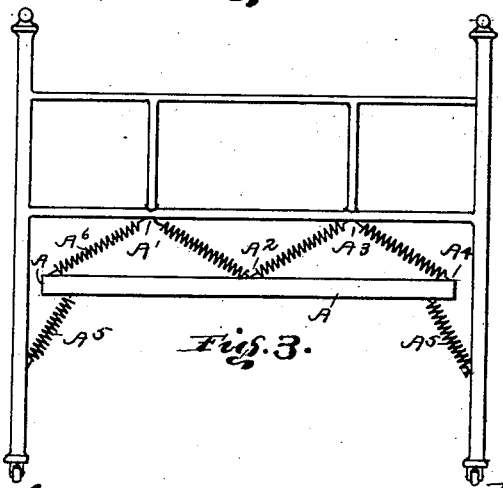

Fig. 3.

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BED.

SPECIFICATION forming part of Letters Patent No. 676,544, dated June 18, 1901.

Application filed July 16, 1900. Serial No. 23,829. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS MARTIN, a subject of the Queen of Great Britain, residing at No. 279 Chestnut street, in the city and county of San Francisco, in the State of California, have invented certain new and useful Improvements in Beds; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

This invention relates to improvements in beds, particularly to the manner of swinging the mattress to the bedstead.

In the drawings Figure 1 is a plan view from above of a bed constructed in accordance with this invention. Fig. 2 is a side elevation of the same. Fig. 3 is an end elevation of the same.

The object which this invention has in view is, first, to construct a bed in such a manner as to be resilient to the movement of a body reclining upon it; second, to so construct a mattress that it will maintain a level smooth appearance when not in use—that is to say, to obviate the unsightliness of a bed which has sagged in the middle after usage, and, third, to so construct a mattress that two persons may comfortably recline upon it without the inconvenience of being rolled together, due to the unusual strain on the springs of the bed.

The objects are accomplished by constructing a mattress having a rigid rectangular frame A, suspending horizontally therein the non-flexible member B, such as a heavy wire-netting or the like, suspending this non-flexible member B by the spiral springs B′, arranged upon its edge, and connecting same to the rectangular frame A and extending across the frame near the head or upper portion of the mattress where the greatest strain comes are the auxiliary springs B^2. The mattress constructed as above described is now suspended within the bedstead, to the head and foot boards thereof, by the spiral springs A^6, zigzagging from the corner of the frame A upward to the point A′, downward therefrom to the point A^2, upward again to the point A^3, and to the opposite corner A^4 of the mattress-frame A. Extending downward from the corners of the mattress and connecting same to the respective bed-legs below the level of the mattress are the spiral tie-springs A^5. This construction of springs is duplicated at the other end of the mattress. This style of mattress-mounting is particularly adapted to iron bedsteads, a ring being attached to the bedstead and mattress, respectively, at the points A A′ A^2 A^3 A^4. It is evident from this construction that the weight of a body sitting or reclining on the edge of the bed tends to depress the mattress evenly throughout its entire body—that is to say, the mattress sinks evenly under the weight of the person. The springs A^5 prevent a too sudden recoil of the suspending-springs in the event of a person arising quickly or a sudden weight being thrown upon the mattress. It is also apparent from this construction that the mattress is in no wise rigidly connected to the bedstead and is not subject to the vibrations thereof. This makes it particularly adaptable for hospital purposes or on board ship, where it is desired to protect the sleeper from uncomfortable motions.

The non-flexible member B, flexibly suspended within the frame A, prevents the mattress from sagging at one point when the strain is applied—that is to say, the weight applied at one point on the member B is transmitted to the springs B′, connecting the member B to the frame A. This is particularly desirable where two persons are occupying the bed. The strain of each being transmitted evenly throughout the mattress prevents the sag at one point causing an inclination to that point.

While the springs shown in the drawings are of the ordinary spiral type, without casing of any kind, it is evident that they may be inclosed within tubes after the fashion of a spring-balance scale. It has been amply demonstrated by practical tests that a bed constructed in accordance with this invention, with the arrangement of springs as shown, accomplishes every purpose desired.

Having thus described this invention, what is claimed is—

In a bed or the like, a mattress-frame, a

plurality of spiral springs extending in a zigzag line between the ends of the said frame and the respective ends of the bed proper and supporting said frame from said bed, a non-elastic body portion within said frame, spiral springs connecting the edges of said body portion with said frame, and springs extending downwardly and connecting the corners of said frame with the bed proper; substantially as described.

In testimony whereof I have hereunto set my hand this 12th day of June, 1900.

FRANCIS MARTIN.

Witnesses:

JOHN HARRISON,

BALDWIN VALE.