(No Model.)

G. W. BENT.

BED.

No. 589,239. Patented Aug. 31, 1897.

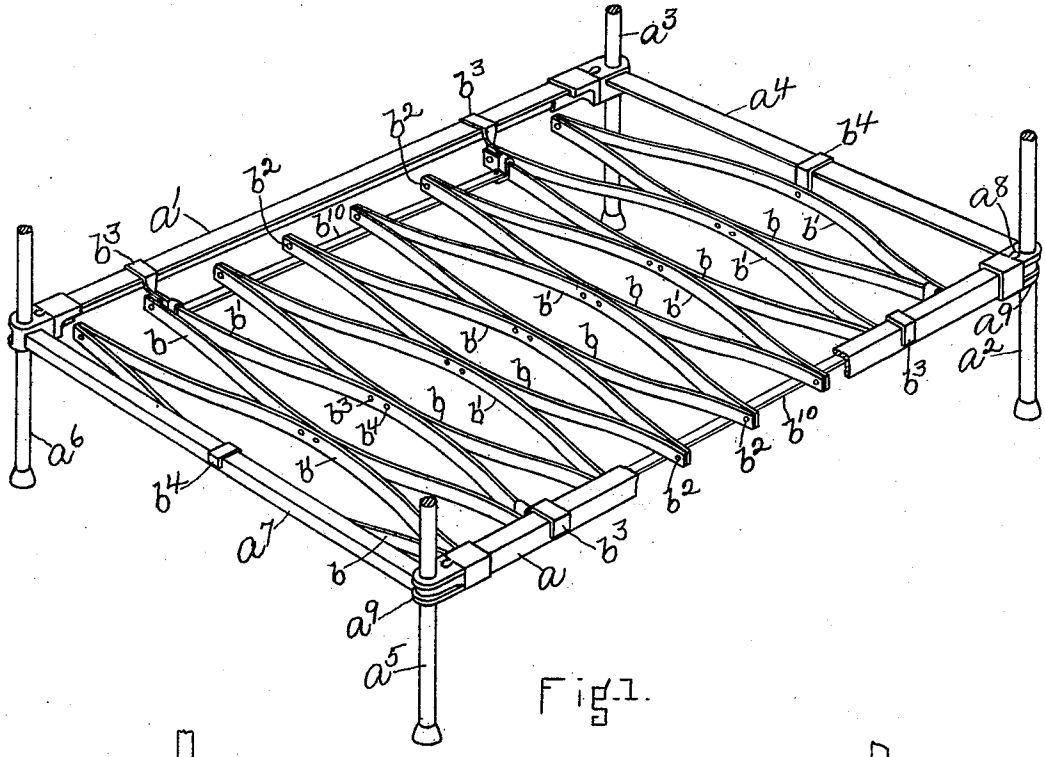


Fig. 1.

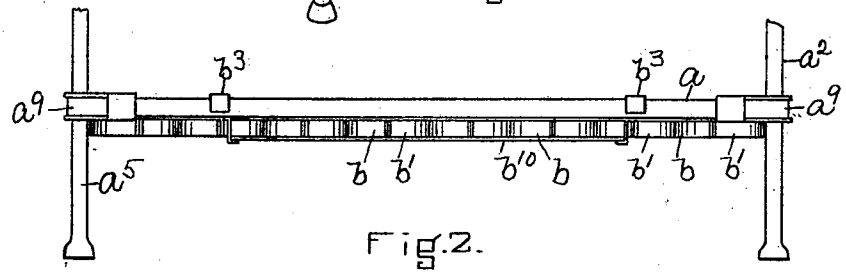


Fig. 2.

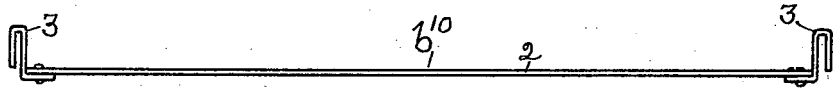


Fig. 3.

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BED.

SPECIFICATION forming part of Letters Patent No. 589,239, dated August 31, 1897.

Application filed October 17, 1896. Serial No. 609,174. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BENT, residing in Hyde Park, in the county of Norfolk and State of Massachusetts, have invented Improvements in Beds, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention relates to extensible bed-bottoms of that class in which the bed-bottom is composed of a series or plurality of bars connected together at their ends to form pairs, which are also connected at their center, so as to expand and contract, each of the said pairs having hangers attached to their ends, which hangers are adapted to engage and be supported by the side rails of a metallic bedstead.

In order to secure lightness in the frame of the metallic bedstead, the side rails are made as light as possible consistent with safety, and these side rails are commonly made of angle-iron, and when the bed-bottom referred to is attached to the side and end rails of the bed-frame by hangers secured to each pair of bars comprising the bed-bottom the side rails of the bed-frame are liable in use to buckle or bend at their center, and more especially if the bed is used to support a substantially heavy weight, for by reason of the bed-bottom being attached to the side rails near their longitudinal center each of the said side rails is practically converted into two substantially long levers with the points of attachment of the said rails to the head and foot frames as pivots, so that when the weight of a person or persons is placed upon the bed-bottom it is transmitted by the center hangers to the center of the side rails, which increases the leverage and with light side rails causes the same to bend or buckle.

My present invention has for its object to improve the class of bed-bottoms referred to, so as to avoid the buckling or bending of the side rails and permit them to be made substantially light when used with this class of bed-bottoms and at the same time render the bed-bottom strong enough to support the weight placed upon it, and I accomplish my object by disconnecting the center pairs of bars from the side rails and providing supporting-bars, which extend under the center pairs of bars, and which supporting-bars may be attached or connected directly with the side rails of the bed-frame or indirectly therewith by connecting the ends of the supporting-bars with the bed-bottom near the head and foot frames, and providing the bars of the bed-bottom to which the supporting-bars are connected with hangers, which engage the side rails near their attachment to the head and foot frames, so that the weight placed upon the bed-bottom is transmitted to the side rails near their ends, which avoids bending and buckling of said rails and permits the latter to be made substantially light.

Figure 1 is a perspective view of a bed-frame provided with a bed-bottom embodying this invention, one of the side rails being broken out; Fig. 2, a side elevation of the bed frame and bottom shown in Fig. 1; Fig. 3, a detail of one of the supporting and connecting bars shown in Fig. 1.

Referring to the drawings, a a' represent the side rails of a metallic bed-frame having a head and foot frame to which the side rails are detachably connected, the said head-frame herein shown comprising the posts a^2 a^3 and cross or end bar a^4, and the foot-frame comprising the posts a^5 a^6 and cross or end bar a^7. The side rails a a' are detachably connected to the head and foot frames, and in the present instance this connection is made by means of lugs a^8 on the ends of the side rails entering sockets in castings a^9 on the posts of the head and foot frames.

The metallic bed-frame is provided with a detachable and extensible bed-bottom composed of a series or plurality of pairs of bars b b' of substantially the width of the bed-frame and preferably firmly united at their opposite ends, as by rivets b^2, the said pairs being also united near their center, as by rivets b^3 b^4, the bar b of one pair being fastened to the bar b' of an adjacent pair. The pairs of bars b b' are suspended from the side rails a a', preferably as shown in Fig. 1, by means of hangers b^3, riveted or otherwise fastened to the ends of the pairs of bars adjacent to the endmost pairs of bars b b', and which hangers engage or fit over the side rails, and the said bars may also be suspended from the end rails a^4 a^7 by hangers b^4, riveted to the endmost bars of the bed-bottom. In ac-

cordance with this invention the pairs of bars *b b'*, practically forming the center portion of the bed-bottom, are not directly connected with or suspended from the side rails, but are left indirectly suspended therefrom by means of preferably detachable tie or supporting bars b^{10}, located on opposite sides of the bed-bottom and preferably made after the manner shown in Fig. 3, each supporting-bar b^{10} consisting of a center bar or portion 2, having secured to or forming part of its opposite ends hooks or hangers 3, the center portion 2 of the bar b^{10} being adapted to extend under the ends of the center pairs of bars *b b'*, and the hooks or hangers 3 being adapted to engage and rest upon one of the bars *b b'* of the pairs to which the side hangers b^3 are secured, as shown in Figs. 1 and 2.

It will be seen that the pairs of bars constituting the center portion of the bed-bottom are firmly supported by the bars b^{10} and that the sides of the bed-bottom are supported by the side rails, but it will also be noticed that the hangers b^3, which support the sides of the bed-bottom, engage the side rails near their opposite ends, and as a result the side rails are not subjected to a strain or leverage, as will be liable in ordinary usage, to bend or buckle the same. The supporting-bars b^{10} for the sides of the bed-bottom may be readily detached or unhooked from the bars *b b'* of the bed-bottom to permit the spring-bars *b b'* to contract or fold after the hangers b^3 b^4 are detached from the side and end rails of the bed-frame.

I prefer to rivet the ends of each pair of bars *b b'*, but such rivets may be omitted and the said bars fastened at their center only.

I claim—

1. A bedstead-bottom consisting of a plurality of pairs of bars connected together intermediate of their ends, supporting-bars extended longitudinally under the ends of the center pairs of bars and engaging bars of pairs located on opposite sides of the center pairs of bars, and hangers attached to the pairs of bars with which the supporting-bars are connected, substantially as described.

2. The combination with a bed-frame having side and end rails, of an extensible bed-bottom composed of a plurality of centrally-connected bars *b b'*, hangers attached to the end bars to engage the end rails of the bed-frame, hangers attached to the ends of the pairs of bars on opposite sides of the central pairs of bars for engagement with the side rails of the bed-frame near the opposite ends of the same, and bars b^{10} extended under the ends of the centrally-disposed pairs of bars *b b'* and provided with hooks or hangers for engagement with the ends of the bars *b b'* of pairs to which the side hangers are secured, substantially as described.

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

GEORGE W. BENT.

Witnesses:
JAS. H. CHURCHILL,
J. MURPHY.