W. HENDLEY.
BEDSTEADS.

No. 195,363. Patented Sept. 18, 1877.

Fig. 1.

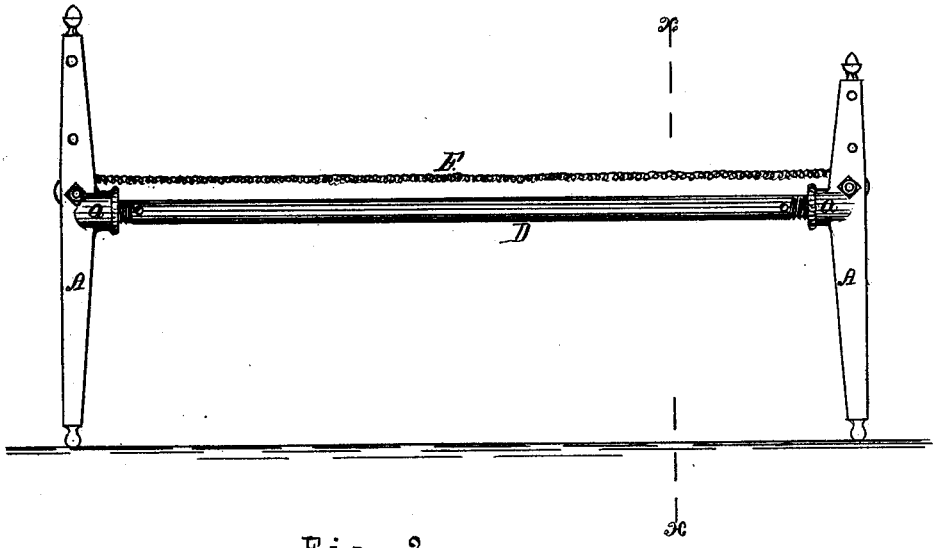


Fig. 2.

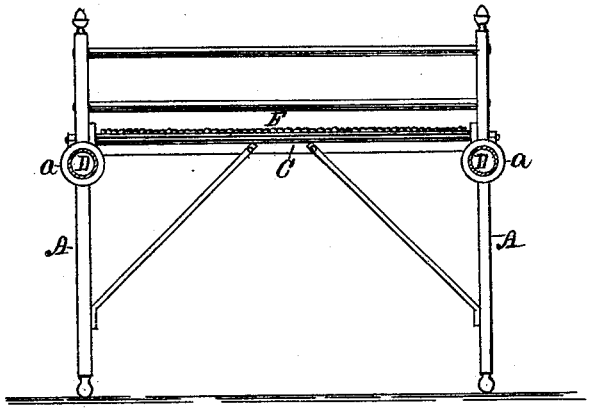
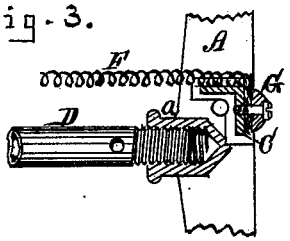


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM HENDLEY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN BEDSTEADS.

Specification forming part of Letters Patent No. **195,363**, dated September 18, 1877; application filed July 22, 1876.

To all whom it may concern:

Be it known that I, WILLIAM HENDLEY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hospital-Bedsteads; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a side elevation of a hospital-bedstead embodying my invention. Fig. 2 represents a cross-section of the same, taken on the line *x x*, Fig. 1; and Fig. 3 represents an enlarged detail section, showing the manner of securing the fabric forming the bed-bottom to the cross-rails of the frame.

Like letters of reference indicate like parts.

My invention relates to that class of bedsteads more particularly adapted for use in hospitals; and the object of my invention is to provide a bedstead constructed wholly of metal, and having the bed-bottom composed of a fabric made of spirally-coiled wires interlocked each into the other, or connected by intermediate wires or other equivalent metallic fabric; and to so arrange the frame as to admit of producing the proper longitudinal tension of the fabric by a rotary movement of the side rails of the frame.

In the drawing, A A represent the posts of the bedstead, which are made of cast or wrought iron, as may be preferred, and of any required height, and are connected in pairs, laterally, to form the ends of the frame, by cross-bars C firmly bolted thereto. Each of said posts is provided at a point below the upper edge of the cross-bars with internal screw-threaded sockets *a*, as shown in Fig. 1.

D D are the side rails of the frame, which are made of the ordinary wrought-metal tubing or gas-pipe of the proper size to insure the required strength. The said side rails are cut of the proper length, and screw-threaded at their ends to fit a corresponding screw-thread within the sockets, as shown in Fig. 3. The screw-thread upon one end of each of said rails is cut right-handed, and that upon the other end is cut left-handed, so that when the rails are turned or rotated the ends of the frame are moved toward or from each other.

F is the bed-bottom, which consists of a web or fabric composed of a series of spirally-coiled wires, interlocked by coiling one coil through another; or they may be connected each to the other by means of intermediate wires.

The cross-bars C are made from wrought-metal bars or channel-irons, having two wings, *e e*, arranged at right angles to each other, as shown in Fig. 3, the object being to insure the greatest amount of strength with a given weight of metal. The ends of the fabric F are attached to the outer side of the cross-bars C, and firmly secured by oval-shaped metal cleats G, riveted to the depending wing of the cross-bars, so as to compress the ends of the fabric between the cleats and edge of the cross-bars, and so that the coils forming the fabric shall extend lengthwise of the frame.

In the construction of elastic wire-fabric bed-bottoms, it is necessary, in order to obtain the full elasticity of the fabric, that it should be attached to the frame only at its ends, so that the series of coils shall extend lengthwise of the frame, and so that the fabric can be stretched lengthwise of the coils to produce the required tension, by which means the fabric is left free to contract laterally as it is sprung down under the weight of the occupant, and adapts itself to the body of the occupant.

In constructing bedsteads as described, the ends of the side rails are screwed into the sockets in the posts until the ends of the frame are drawn together, or toward each other, as far as the side rails will admit. The fabric is then attached to the cross-bars, as described, and the side rails unscrewed, so as to force the ends of the frame from each other and to the proper distance to strain the fabric, so as to produce the desired tension of the fabric.

By constructing the bedstead wholly of metal, and providing a wire-fabric bed-bottom, as described, I am enabled to manufacture a much stronger and more durable bedstead,

and at less expense, than any combined bedstead and bed-bottom in common use, and so that all its parts are united together as not to leave any open joints within which insects can secrete themselves.

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

In a metallic bedstead, in combination with the side rails D D, provided at opposite ends with right and left hand screw-threads, cross-rails C C, and the posts A A, provided with the right and left hand screw-threaded sockets *a*, to receive the ends of the side rails of the elastic wire-fabric bed-bottom F, attached at its ends to the cross-rails, whereby the fabric is tightened in the direction of the length of the coils by rotating the side rails, substantially as specified.

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Witnesses:
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