J. SCHWARTZMAN.

BED SPRING.

APPLICATION FILED JULY 15, 1911.

1,007,981.

Patented Nov. 7, 1911.

2 SHEETS—SHEET 1.

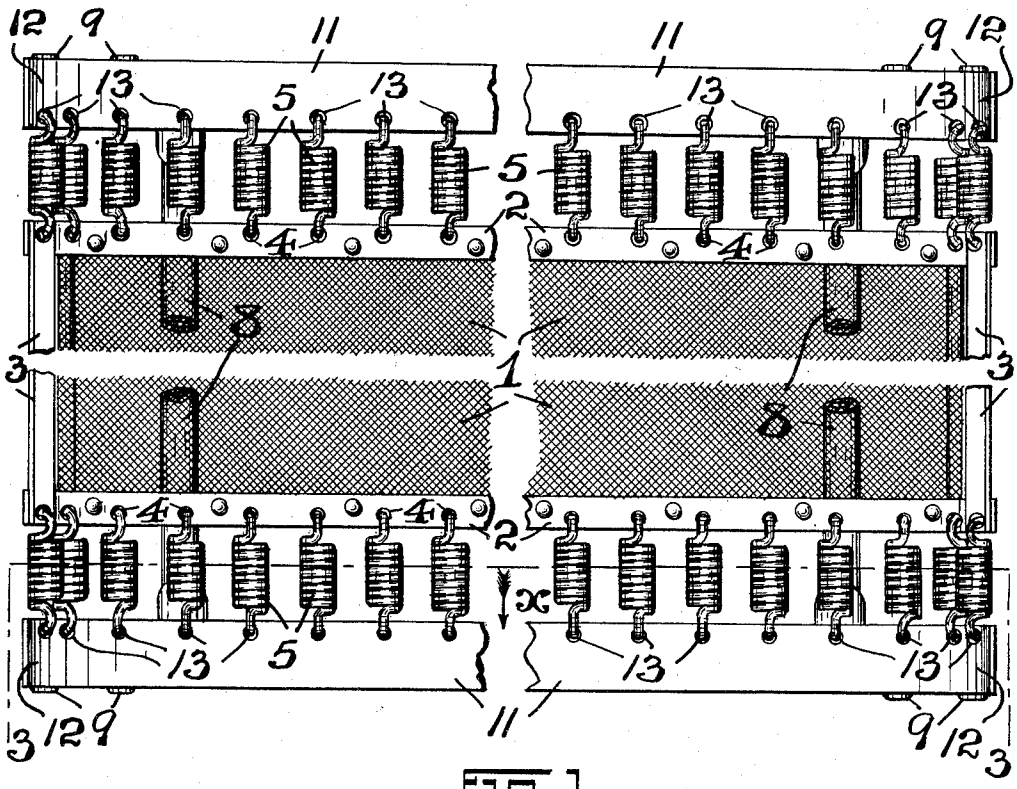

Fig. 1

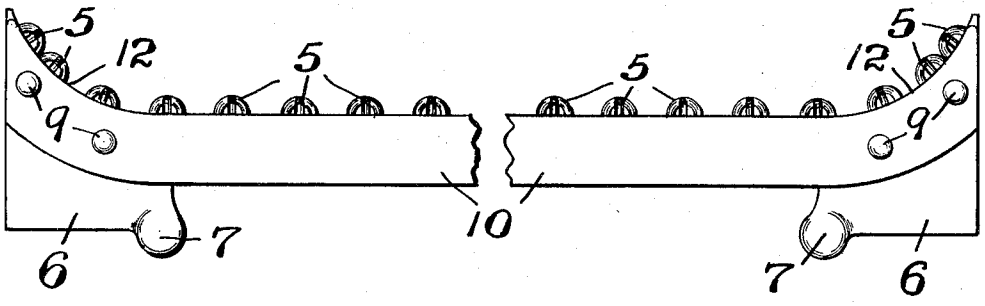

Fig. 2

WITNESSES:

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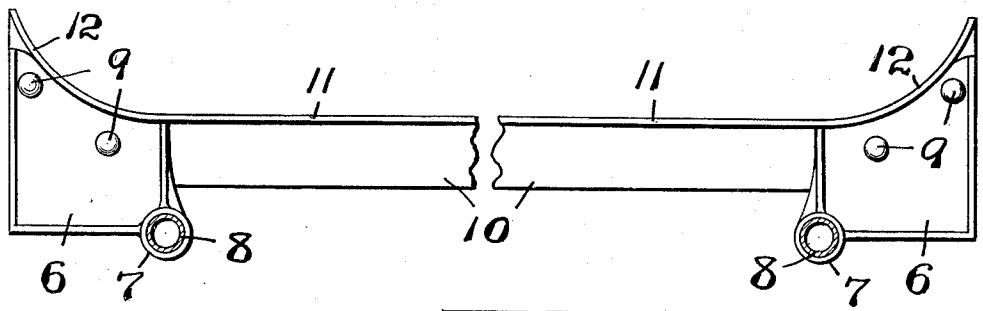

Fig. 3

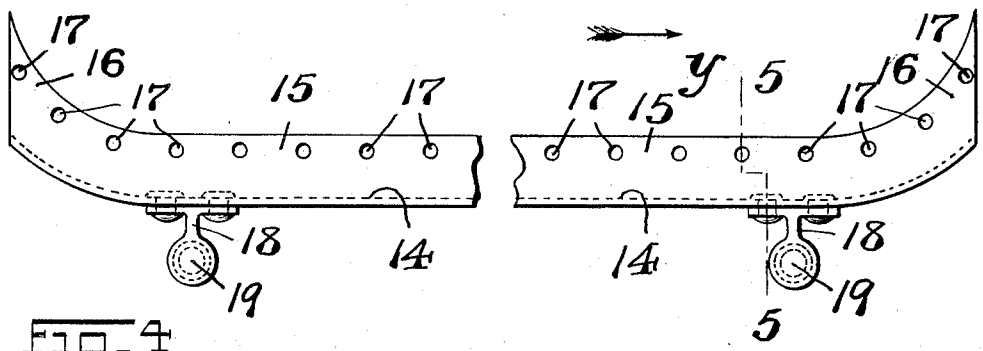

Fig. 4

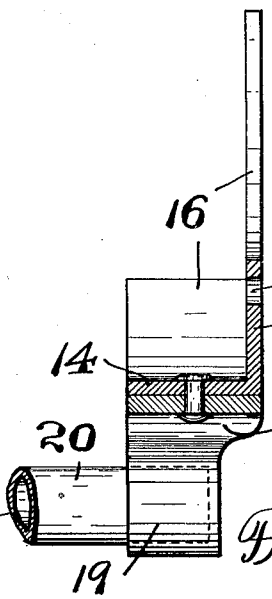

Fig. 5

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UNITED STATES PATENT OFFICE.

JACUB SCHWARTZMAN, OF BROOKLYN, NEW YORK.

BED-SPRING.

1,007,981. Specification of Letters Patent. Patented Nov. 7, 1911.

Application filed July 15, 1911. Serial No. 638,606.

To all whom it may concern:

Be it known that I, JACUB SCHWARTZMAN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bed-Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

The present invention has reference, generally, to improvements in bed-springs; and, the invention relates, more particularly, to improvements in bed-springs made from a wire-woven or spring-constructed metallic fabric, and in the novel frame upon which said spring-fabric is supported and stretched.

My present invention has for its principal object to provide a novel construction of frame for supporting the metallic spring-fabric in a manner, so as to strengthen the longitudinal edges of said spring-fabric, and to thereby prevent the sagging of the longitudinal marginal edges of the spring-fabric, and consequently preventing the mattress supported upon said spring-fabric from sagging at the longitudinal sides, and ridging or bulging up in the center.

Other objects of this invention not at this time more particularly enumerated, will be clearly understood from the following detailed description of the present invention.

The invention consists in the novel supporting frame for spring-fabrics forming bed-springs hereinafter set forth; and, the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, all of which will be hereinafter more fully described and then finally embodied in the clauses of the claim which are appended to and which form an essential part of this specification.

The present invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view of the end-portions of a bed-spring provided with a metallic spring-fabric or wire-mesh, and the novel construction of frame for supporting the latter, made according to and embodying the principles of the present invention; Fig. 2 is an elevation of one end of the same; and Fig. 3 is a transverse section taken on line 3—3 in said Fig. 1, looking in the direction of the arrow x, the spring-fabric being removed from its connection with the frame in this latter view. Fig. 4 is an elevation of one end of a slightly modified construction of the frame for supporting a spring-fabric, the same embodying, however, the general principles of my present invention; and Fig. 5 is an enlarged detailed cross-section of a portion of said frame, said section being taken on line 5—5 in said Fig. 4, looking in the direction of the arrow y.

Similar characters of reference are employed in all of the hereinabove described views to indicate corresponding parts.

Referring now to the several figures of the drawings, the reference-character 1 indicates any suitable wire-mesh or fabric, such as is used in the ordinary construction of bed-springs, the same being provided with the transverse or lateral end-straps 2, and, if desired, with the longitudinal side-straps 3. The said end-straps 2 are provided, adjacent to their rear-marginal edges, with a series of suitably spaced perforations 4, in which are received the ends of suspension or stretcher-springs 5, the latter being preferably of the coil or spiral type. The frame for supporting said spring-fabric comprises a plurality of corner-brackets or blocks 6, each bracket or block being provided with a socket-piece 7. Extending between the oppositely facing corner brackets or blocks 6 are longitudinally extending stretcher-rods 8, the ends of which are received and secured in the respective socket-pieces of said corner-brackets or blocks 6.

Extending between the laterally opposite corner-brackets or blocks 6, and secured, by means of rivets 9, or any other desirable fastening means, to the body of each corner-bracket or block 6, are head or cross-bars 10, which are preferably made of angle iron. Said head or cross-bars are arranged so as to present their horizontal flanges 11 inwardly, and the ends of said head or cross bars are bent to provide upwardly turned or bent portions 12 at each end thereof. The said horizontal flanges 11 of said head or cross bars are provided, adjacent to their free edges, with a series of suitably spaced holes or perforations 13, extending in a line from one end of said head or cross-bar to the other

end thereof, said perforations 13 being adapted to receive the opposite or free ends of said suspension or stretcher-springs 5, which are connected with said spring-fabric. Since the said holes or perforations 13 extend up the curved or turned portions 12 of said head or cross-bars, it will be apparent, that when said spring-fabric 1 is connected to such portions 12, by means of said suspension or stretcher-springs 5, the longitudinal marginal edges of the spring-fabric will be caused to assume an upward turn or inclination. Such a turn or inclination tends to stiffen and strengthen the spring-fabric at said longitudinal marginal edges, thus enabling the same to stand greater strain without sagging or distortion, and thereby rendering the center of the spring-fabric uniformly smooth and straight.

Referring now, more particularly, to Figs. 4 and 5 of the accompanying drawings, I have illustrated therein a slightly modified construction of frame for supporting the spring-fabric of a bed-spring, the same embodying, however, the principles of my present invention. In this construction, the reference-character 14 indicates a slightly modified construction of head or cross-bar, the body of which is preferably made of angle-iron, providing a vertical flange 15. The ends of said head or cross-bar are bent to provide upwardly turned or bent portions 16 at each end thereof, the said vertical flange 15 of said head or cross bar being provided, adjacent to its free edges, with a series of suitably spaced holes or perforations 17, which extend in a line from one end of said head or cross-bar to the other thereof, and the same following the curve or inclination of the said turned or bent portions 16 at the ends of said head or cross-bar. Said holes or perforations 17 are adapted to receive the ends of said suspension or stretcher-springs 5 of said spring-fabric. Connected with said head or cross bars 14, in any desirable manner, are suitable bracket-pieces 18, which are provided with socket-pieces 19 for receiving the ends of stretcher-rods 20, thus completing the frame. A frame thus constructed operates to support the spring-fabric in substantially the same manner, and with the same advantages as above described in connection with the main or preferred construction of supporting frame.

I am aware that changes may be made in the various arrangements and combinations of the several devices and parts, and in the features of the present invention, without departing from the scope thereof, as described in the foregoing specification, and as defined in the claims appended thereto. Hence, I do not limit my invention to the exact arrangements and combinations of the various devices and parts as herein set forth, and as illustrated in the accompanying drawings, nor do I confine myself to the exact details of the said parts.

I claim:—

1. In bed-springs, means for supporting a spring-fabric, comprising head or cross-bars provided with upwardly inclined or turned ends, said head or cross-bars being provided with a series of holes or perforations extending from end to end of the same, stretcher-rods, and means for connecting said stretcher-rods with said head or cross-bars, substantially as and for the purposes set forth.

2. In bed-springs, means for supporting a spring-fabric, comprising a pair of head or cross-bars, means for connecting said head or cross-bars in rigid and opposite relation to each other, a flange connected with each head or cross-bar, each head or cross-bar and its flange being turned to form upwardly inclined bent portions at the ends thereof, said flange and its upwardly inclined bent-portions being provided, adjacent to the free edges thereof, with a series of suitably spaced holes or perforations adapted to receive the suspending devices of the spring-fabric, substantially as and for the purposes set forth.

3. In bed-springs, means for supporting a spring-fabric, comprising a pair of longitudinally extending stretcher-rods, corner-brackets or blocks provided with socket-pieces for receiving the ends of said stretcher-rods, head or cross-bars secured to and extending laterally between said corner brackets or blocks, a flange connected with each head or cross-bar, each head or cross-bar and its flange being turned to form upwardly inclined bent portions at the ends thereof, said flange and its upwardly inclined bent portions being provided, adjacent to the free end edges thereof, with a series of suitably spaced holes or perforations adapted to receive the suspending devices of said spring-fabric, substantially as and for the purposes set forth.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 13th day of July, 1911.

JACUB SCHWARTZMAN.

Witnesses:
FREDK. C. FRAENTZEL,
FREDK. H. W. FRAENTZEL.