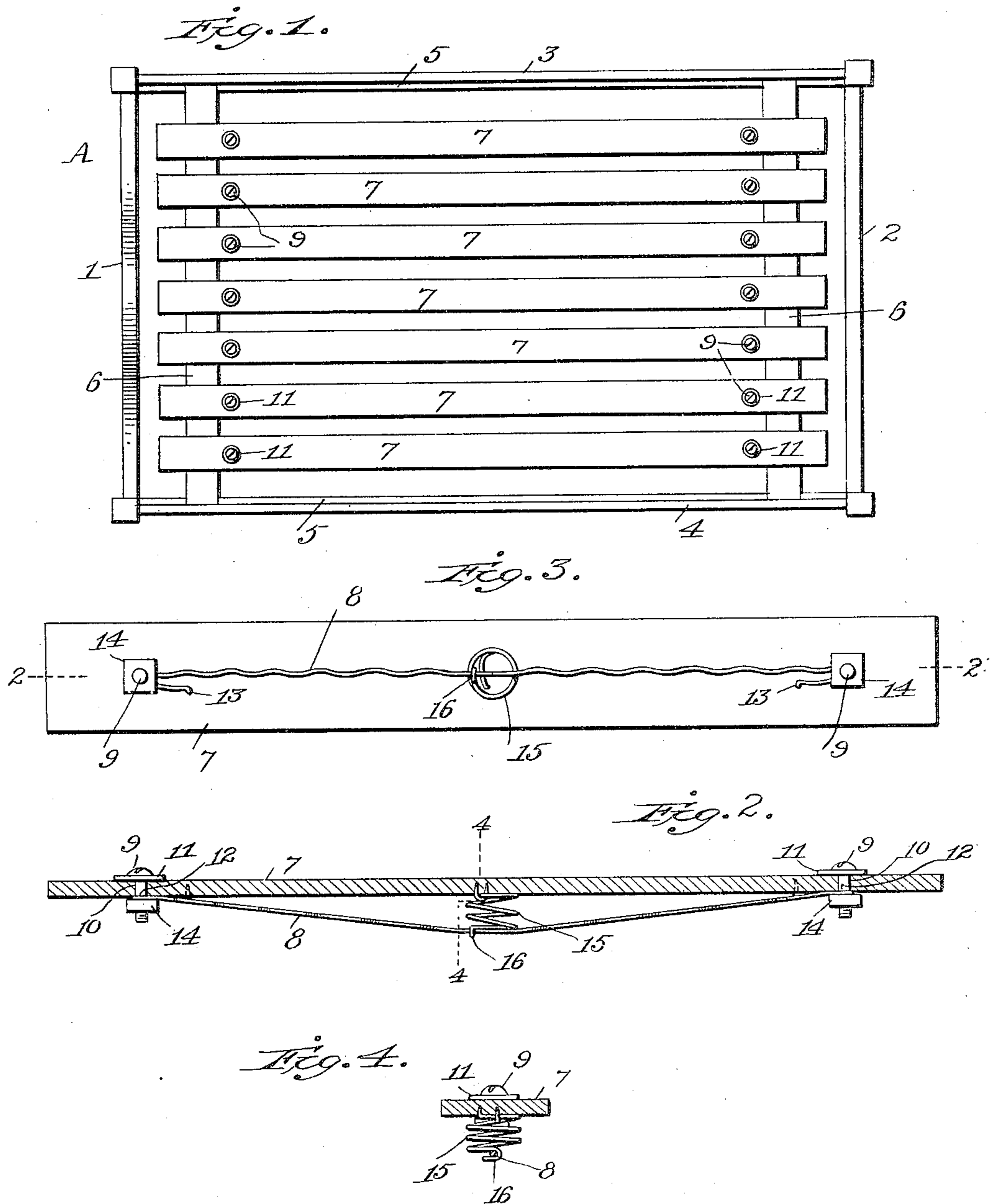


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PATENTED DEC. 19, 1905.

J. W. TATUM.
BED SLAT.

APPLICATION FILED JUNE 5, 1905.



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BED-SLAT.

No. 807,515.

Specification of Letters Patent.

Patented Dec. 19, 1905.

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To all whom it may concern:

Be it known that I, JAMES WILLIAM TATUM, a citizen of the United States, residing at Durham, in the county of Durham and State of North Carolina, have invented new and useful Improvements in Bed-Slats, of which the following is a specification.

My invention has relation to new and useful improvements in bed-slats; and the primary object of the invention is to construct a slat consisting of a flexible member provided with means to resiliently resist the bending action thereof, so as to produce a slat having increased yielding qualities when subjected to weight, but which will resume its normal position when not in use.

A further object is to provide a slat which can be used in connection with any bed, the bottom of which is adapted to be made from a plurality of separable and independent slats.

The invention consists in the construction and arrangement of parts, to be fully described hereinafter and the novelty of which will be particularly pointed out and distinctly claimed.

I have fully and clearly illustrated my invention in the accompanying drawings, to be taken as a part of this specification, and wherein—

Figure 1 is a plan view of a bed-bottom made up of a plurality of slats embodying my present invention. Fig. 2 is a longitudinal central section through one of the slats. Fig. 3 is a bottom plan view of one of the slats. Fig. 4 is a transverse section on the line 4 4 of Fig. 3.

Referring to the drawings, A designates a bed comprising end pieces 1 2 and side pieces 3 4, the said end and side pieces being of any of the well-known forms commonly in use. The side pieces are provided on their inner faces adjacent the lower edges thereof with longitudinally-extending shoulders or flanges 5, and supported on said flanges at each end of the bed is a cross-piece 6, said cross-pieces serving as supports for the ends of the slats of which the bed-bottom is to be formed and which embody my present invention.

Each of the slats above referred to consists of a slat member 7, shown as consisting of a strip of wood of any character possessing the requisite qualities of flexibility, said strip being of dimensions suitable to the cir-

cumstances under which it is employed, the length being such that the strip may be supported at its opposite ends upon the respective cross-pieces 6, heretofore mentioned, so that when the slats are in position in the bed they extend longitudinally of the latter.

It will be readily appreciated that each slat being arranged as above described will be supported at the ends only and entirely unsupported at its intermediate portions, so that it will be bent downward at said intermediate portions when subjected to weight upon its upper face. For the purpose of resisting the downward movement of the slat, owing to the bending action referred to, I provide a longitudinally-extensible tension member and cushioning device of novel and peculiar construction and which forms a part of each individual slat, it being understood that each slat of the bed-bottom is separable from and independent of each and all of the other slats employed to provide the bottom and that each independent slat is provided with its own tensioning device.

The longitudinally-extensible tension member above referred to consists of a stout metal rod or wire 8, arranged upon the under side of the slat and extending longitudinally of the latter and having its ends anchored or secured to the slat at points adjacent the ends thereof, said member being crimped or waved throughout its length, whereby it possesses a considerable degree of resiliency or elasticity when subjected to longitudinal pull, and thereby placed under tension. The anchoring or securing device for securing the respective ends of the tension member in position consists of a headed screw 9, let through an opening 10 in the slat from the upper side of the latter, a suitable washer 11 being arranged between the head of the screw and the upper face of the slat and the lower end of the screw projecting for a short distance beyond the under face of the slat to provide an anchoring-post 12. The end portion of the tension member is carried around that portion of the screw constituting said post and is then directed substantially parallel to the main part of said member and at its extreme end bent laterally, as at 13, and sunk into the under face of the slat member. The end of the rod being arranged as shown and as just described, a clamping-nut 14 is threaded upon the screw 9 and screwed up

tightly against the substantially parallel portions of the tension member adjacent said screw, so that the end of said member is securely clamped between the said nut and slat member. By sinking the end of the rod in the body of the slat member a simple and efficient means is provided whereby the ends of the rod are prevented from being pulled from between the nuts 14 and the slat when the said rod is subjected to excessive tension.

Means is provided for maintaining the resilient member 12 always under tension so as to tend to pull the ends of the slat member downward, and thereby maintain the latter straight throughout its length. This means consists of an expansion coil-spring 15, located at approximately the center of the slat member and between the tension and said slat member, said coil-spring being disposed with its longitudinal axis extending at right angles to the slat and the tension member and exerting its energy to force the slat and tension members away from each other at their central portions. The coil-spring is secured in position by forming one end with a loop 16, which embraces the elastic tension member at a point intermediate the ends of the latter and by sinking the opposite end of said spring in the body of the slat member, all as shown in Fig. 2 of the drawings. By this arrangement the tension member is at all times held under more or less tension independent of its own elasticity, so that any bending action of the slat member downward at a point intermediate its ends is resisted.

It will be seen from the above description that the complete slat embodies a bendable member, a resilient elastic tension member disposed with its longitudinal axis extending lengthwise of the said slat member, said tension member exerting its elasticity lengthwise of the slat, and a cushioning means disposed with its axis transverse to the slat member. This novel arrangement and con-

struction of the tension member and cushion device is such that said member and device operate in a manner to provide a slat which is extremely springy when subjected to weight, but which quickly resumes its normal position when not in use, the coil-spring constituting the cushion serving at all times to primarily resist bending action of the slat, and to maintain the tension member under tension while the said tension member by virtue of its own elasticity when the spring is completely collapsed affords an additional cushioning means for the slat.

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

1. A bed-slat comprising a slat member, a tension member extending longitudinally of the slat member and consisting of a single strand of crimped wire inherently longitudinally extensible and contractible, means for securing the opposite ends of said tension member, and an expansive cushion device arranged between the said members and exerting its force transversely thereto.

2. A bed-slat comprising a slat member, anchoring-posts at the opposite ends thereof, an elastic tension member extending longitudinally of the slat, and having its opposite ends passed around said posts and sunk into the body of the slat member, clamping devices on said posts to secure the ends of the tension members thereto, and an expansive coil-spring disposed between the tension and slat members and exerting its expansive force against the same.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES WILLIAM TATUM.

Witnesses:

A. M. KIRKLAND,
W. WILKERSON.