

No. 615,838.

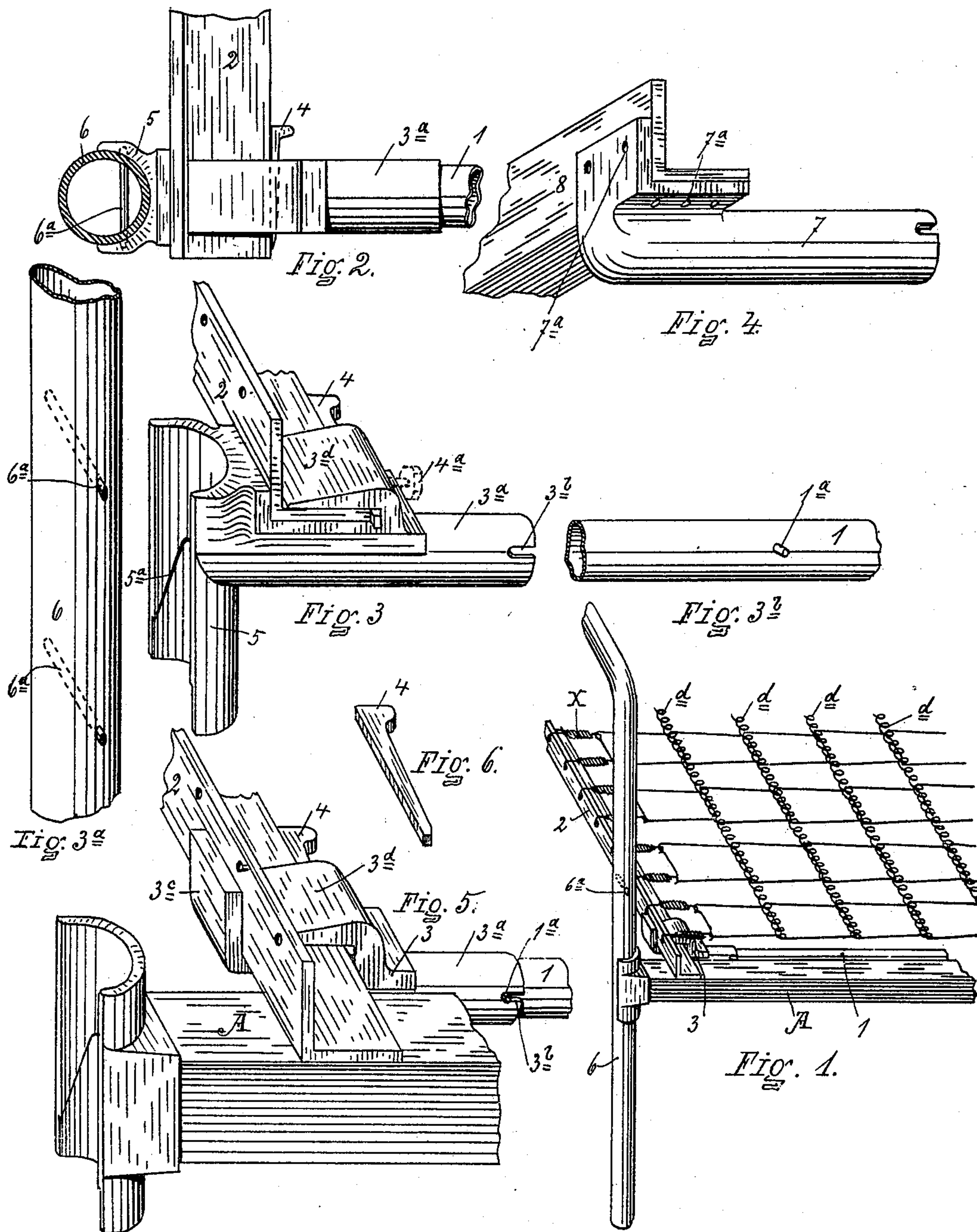
O. S. & W. S. FOSTER.  
BED.

Patented Dec. 13, 1898.

(Application filed Aug. 1, 1895.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES.

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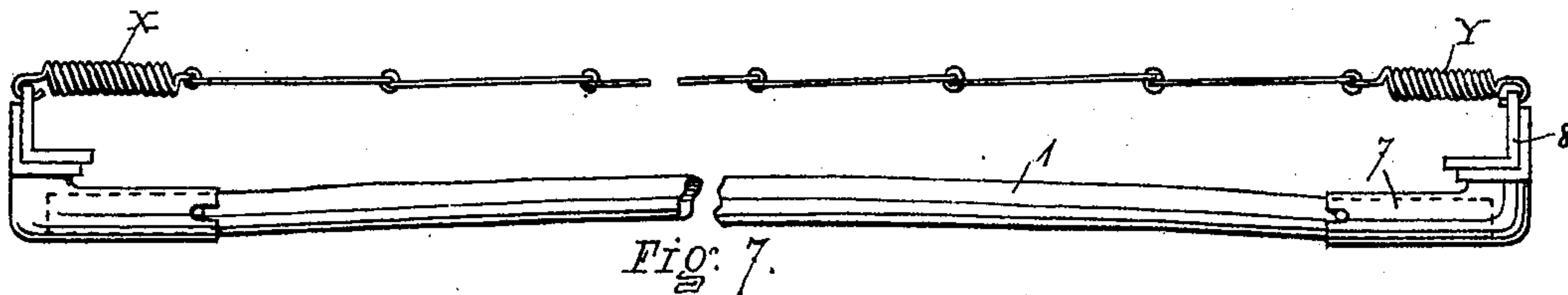


Fig. 7.

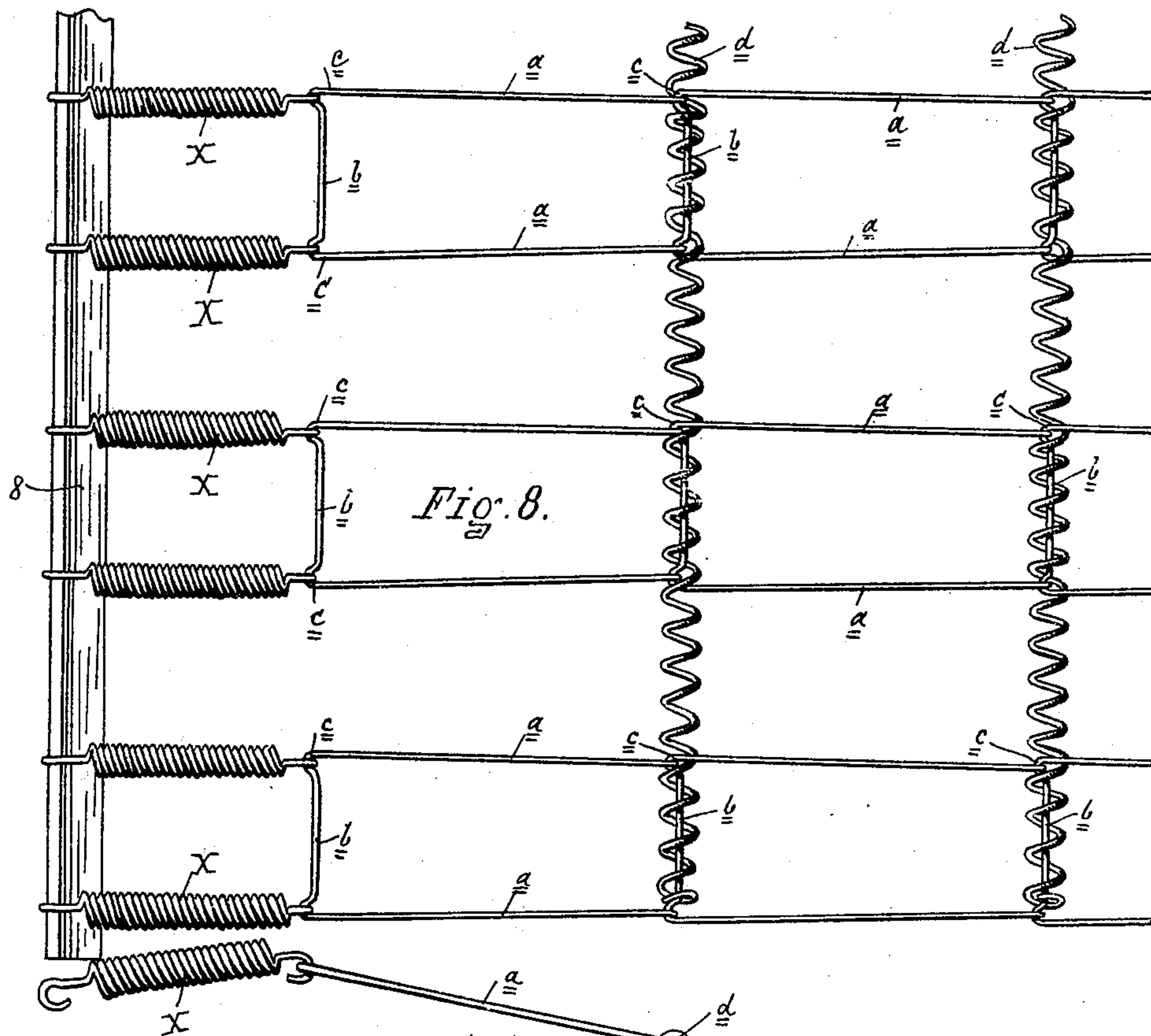


Fig. 8.

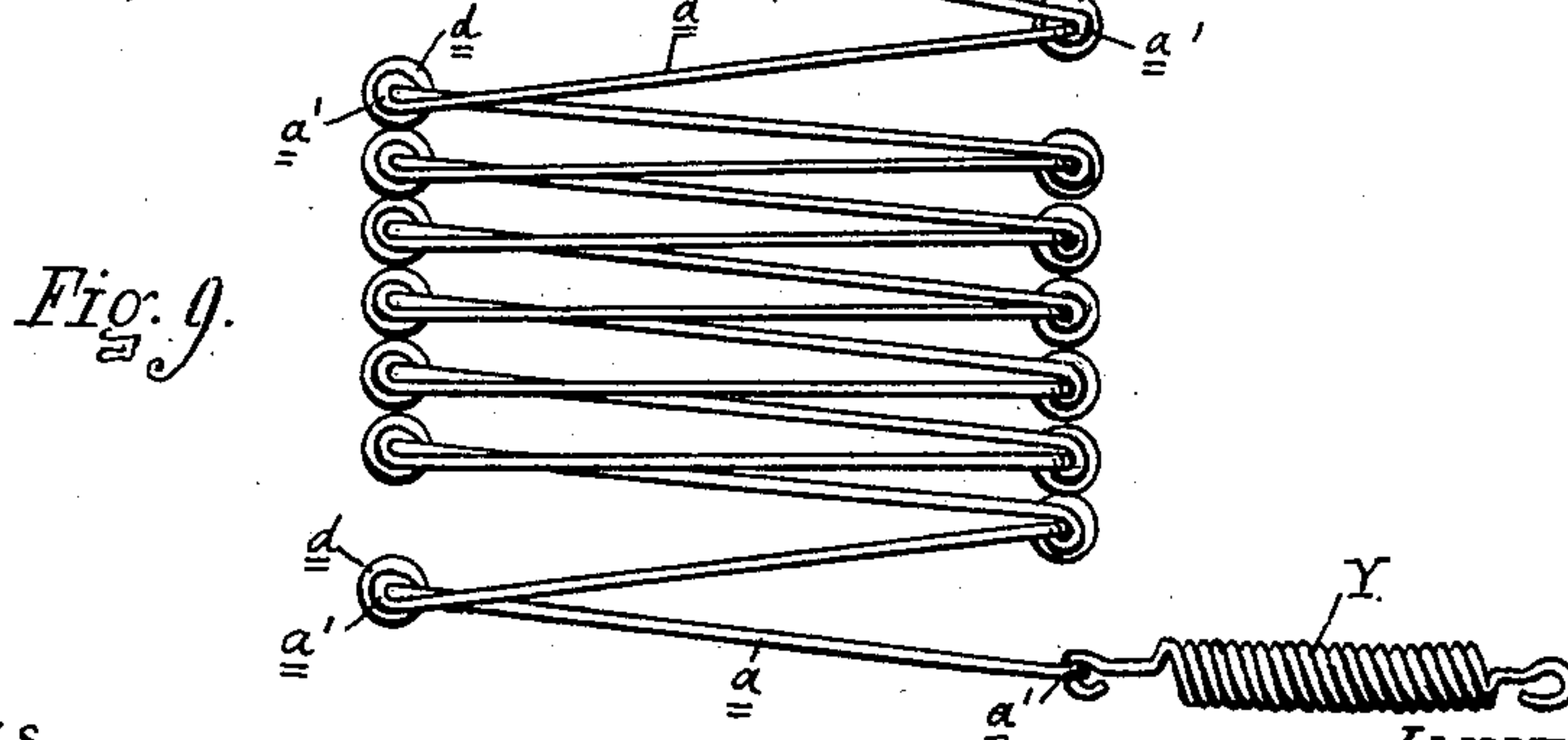


Fig. 9.

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# UNITED STATES PATENT OFFICE.

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## BED.

SPECIFICATION forming part of Letters Patent No. 615,838, dated December 13, 1898.

Application filed August 1, 1895. Serial No. 557,850. (No model.)

*To all whom it may concern:*

Be it known that we, OSCAR S. FOSTER and WILLIAM S. FOSTER, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Beds; and we do hereby declare that the following is a full, clear, and exact description of the invention, which 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 the letters and figures of reference marked thereon, which form part of this specification.

Our invention relates to improvements in beds.

In the drawings which accompany and form a part of this specification, and in which similar letters and figures of reference refer to corresponding parts in the several views, Figure 1 shows a corner of a bedstead and a corner of our improved construction of bed. Fig. 2 shows a plan view of a corner of a bed-frame, of a modified form of construction from that shown in Fig. 1, in connection with a cross-section of a bed-post employed with this construction. Fig. 3 shows in perspective the construction shown in Fig. 2. Fig. 3<sup>a</sup> shows the post employed with the construction shown in Fig. 3. Fig. 3<sup>b</sup> shows a section of the side rail employed with the construction shown in Fig. 3. Fig. 4 shows another modified form of construction. Fig. 5 shows, on a larger scale, the same construction shown in Fig. 1. Fig. 6 shows a wedge or key employed in the construction. Fig. 7 shows a side view of the frame of a form of construction corresponding with that shown in Fig. 4. Fig. 8 shows a plan view of a section of fabric employed in connection with the springs which hold it taut and the section of cross-bar to which it is attached. Fig. 9 shows an edge view of the fabric folded.

In the form of construction shown in Figs. 1 and 5 the bed-frame on which the fabric is stretched is composed of side rails 1 and cross-bars 2, the former being, as shown, of pipe. Angle-iron or other form may be readily employed by slightly modifying the socket-holding device which receives the ends of the side rails. The cross-bar, as shown, consists of a right-angled angle-iron, and this form is preferable under most circumstances. For at-

taching the side rail to the cross-bar we use a holding device, (indicated generally by the reference-numeral 3.) This holding device is provided with a socket 3<sup>a</sup>, which receives the end of the side bar 1, and is provided with a notch in the end, as indicated at 3<sup>b</sup>, which receives the stud-pin 1<sup>a</sup>, projecting from the side of the side rail, and prevents the holder from turning on the end of the side rail. The holder 3 is also provided with a flange 3<sup>c</sup>, adapted to form a shoulder for the outside of the cross-bar or end rail 2 and also provided with a hook-like portion 3<sup>d</sup>, which overhangs the horizontal portion of the cross-bar. The end of the cross-bar is slid into the holder from the side, the horizontal web of the angle passing under the hook 3<sup>d</sup> and the rear web abutting against the flange 3<sup>c</sup>, and in this position the cross-bar is secured by the wedge or key 4, driven into the opening between the base of the hook 3<sup>d</sup> and the edge of the horizontal flange of the cross-bar, forcing it against the face of the flange 3<sup>c</sup> and firmly securing it. In lieu of the key a set-screw (shown in dotted lines at 4<sup>a</sup> in Fig. 3) may be used. The key 4 is preferably provided with a head that can be struck with a hammer to withdraw the key. By this arrangement the side rails of the bed may be adjusted from the extreme outer end of the cross-bar toward the center to accommodate the bed to any size of bedstead, and in the construction, as shown in Figs. 1 and 5, the side rail has been moved in from the extreme outer ends of the cross-bars, so that the end of the cross-bar can rest upon the side rail of a bedstead, (indicated by A in Figs. 1 and 5.)

Another advantage in having the side rails movable is that a certain amount of the strain of the fabric may be placed on the outer side of the side rail, while the side rails are moved in and the tendency of the cross-bar to spring in the center to a certain extent is obviated.

The cross-bar and side rail may both be provided with truss stays or braces to increase their ability to resist strain, if desired.

The construction shown in Figs. 2 and 3 is similar to that shown in Figs. 1 and 5, except that there is added onto the holder 3 a half-sleeve 5, adapted to engage a bed-post, as 6, the sleeve 5 being provided with hook-like shoulders 5<sup>a</sup> on its inner face, adapted to en-



gage the projecting ends of either of the pins 6<sup>a</sup> extending through the bed-post, whereby the bed-frame is attached to the post without the use of the side rails, as A. The two pins, 5 as 6<sup>a</sup>, in each post or leg allow the side rail or bed-frame to be mounted in a higher or lower plane, as desired.

In the form of construction shown in Fig. 4 the holding-piece 7 is modified from the 10 construction shown in the other figures to its simplest form, and the end rails or cross-bar 8 is simply secured by rivets onto the piece 7, the rivets being shown at 7<sup>a</sup>. The socket-piece 7, however, is detachable from the side 15 rail in the same manner as shown in Figs. 3, 3<sup>b</sup>, and 5.

The side rails employed in all of the construction are bowed upward, as shown particularly in Fig. 7, to more effectually with- 20 stand the strain of the fabric.

The fabric employed in the construction consists of a series of similar U-shaped links, having hooked arms *a a* and a cross-bar at the base of the U *b*. Where the arms *a a* join 25 the cross-bar at either side are provided indentations or small bends *c c* in which the hook of the next adjacent link engages. These links when joined together form belts extending lengthwise of the bed, and they are 30 arranged at intervals, so that the interval between the adjacent belts will be substantially equal to the intervals between the arms *a a* of the links.

Passing transversely across the bed and 35 along the cross-bars *b* of each link are provided the spiral stays *d*, which coil around the cross-bars *b* and extend between the belts, holding them spaced at suitable intervals while permitting the fabric to be folded to- 40 gether or doubled up, as shown in Fig. 9, the links hinging together where the hook ends *a'* engage indentation *c* of the next adjacent link. This allows the fabric to be 45 doubled up and folded into a very compact body. The fabric is stretched or held taut in the bed-frame by means of the helical springs X at one end of the bed and Y at the other end. These springs are similar in construction, except the way in which the hooks 50 are turned to adapt them to engage the fabric and the cross-bars of the bed, respectively.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination in a bed, of posts, bed- 55 bottom and laterally-adjustable means for connecting the bed-bottom to the posts, substantially as set forth.

2. The combination in a bed-bottom of side

rails, cross-bars and a fastener between the side rails and cross-bar, constructed and ar- 60 ranged to slide along the cross-bars, substantially as set forth.

3. The combination in a bed-bottom of side rails, cross-bars, a laterally-adjustable fastener between the side rail and cross-bar, and 65 a fabric attached to the cross-bar above the top of the fastener, substantially as set forth.

4. The combination in a bed of a side rail, a cross-bar, a fastener which receives the cross-bar adjustably therein and a wedge, sub- 70 stantially as set forth.

5. The combination in a bed of a side rail, a cross-bar, a leg and a common fastener having a socket for receiving the end of the side rail, an adjustable clamp for securing the 75 cross-bar and a half-sleeve for engaging on the leg with hooks for supporting the frame combined, substantially as set forth.

6. In a bed the combination with head and foot frames of a bed-bottom consisting of side 80 or longitudinal bars and cross or end bars, one or both of the said longitudinal bars being laterally adjustable on the cross or end bars and means to attach the longitudinal bars directly to the said head and foot frames. 85

7. In a bed the combination with head and foot frames of a bed-bottom consisting of side or longitudinal bars and cross or end bars, one or both of the said longitudinal bars being laterally adjustable on the cross or end 90 bars, means for securing the cross and end bars when adjusted and means to attach the longitudinal bars directly to said head and foot frames.

8. The combination in a bed-frame of side 95 rails, corner-fasteners secured on the side rails, cross-bars engaging in and adjustable in the corner-fasteners and wedges engaging between the cross-bars and corner-fasteners, substantially as set forth. 100

9. A bed fabric consisting of longitudinal courses arranged at intervals of links consisting of parallel side arms hooked at one end and having an integral cross-bar between their other ends and spiral cross-stays ex- 105 tending between and forming the sole connection between the courses of links and coiled around the cross-bars of the links in passing the courses, substantially as set forth.

In witness whereof we have affixed our sig- 110 natures in presence of two witnesses.

OSCAR S. FOSTER.

WILLIAM S. FOSTER.

Witnesses:

H. C. STONE,

GEORGE C. CARTER.