(No Model.) 2 Sheets—Sheet 1.

J. F. ANDERSON.

BRACE FOR BEDSTEADS.

No. 578,804. Patented Mar. 16, 1897.

Fig. 1.

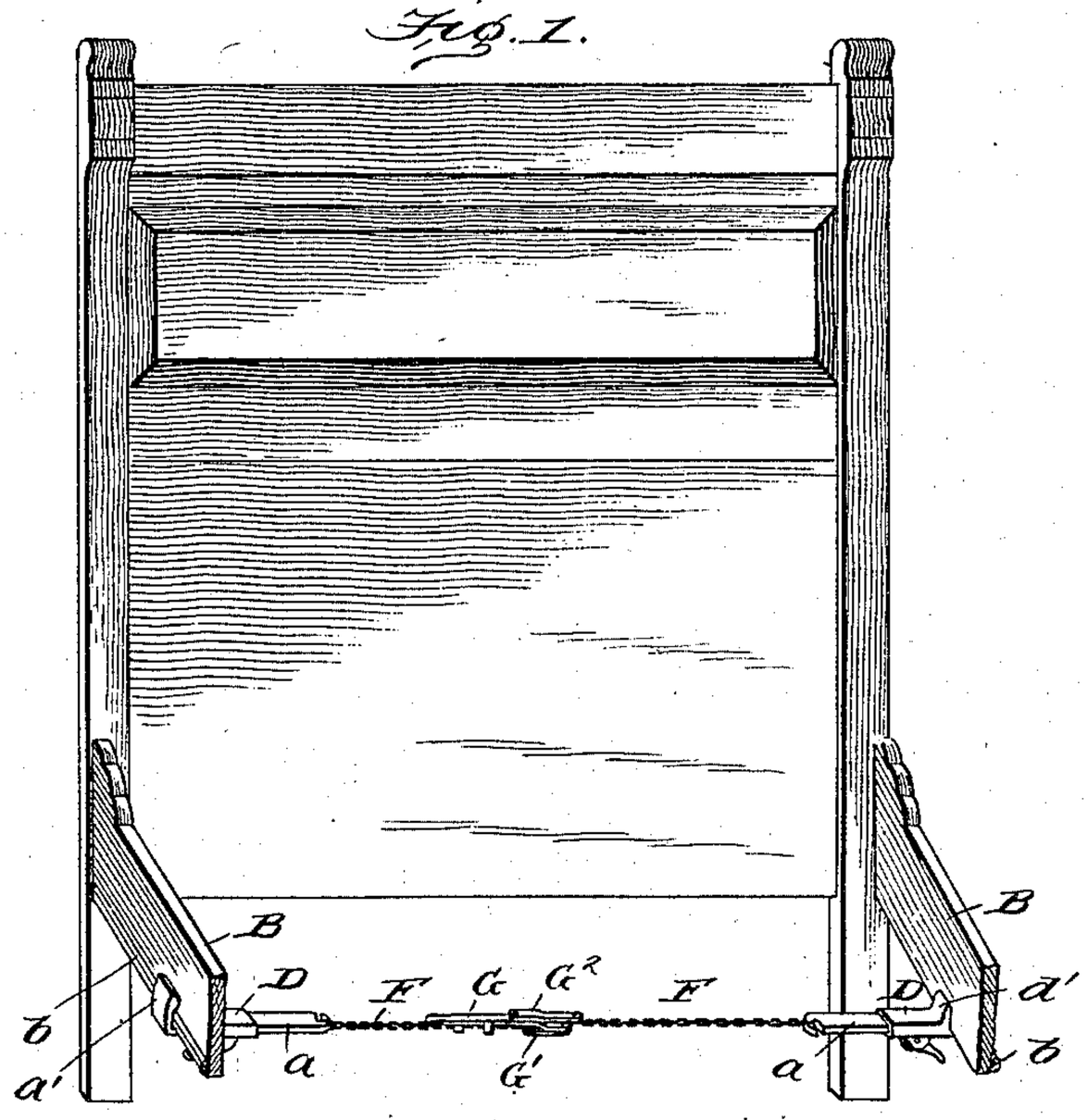


Fig. 2.

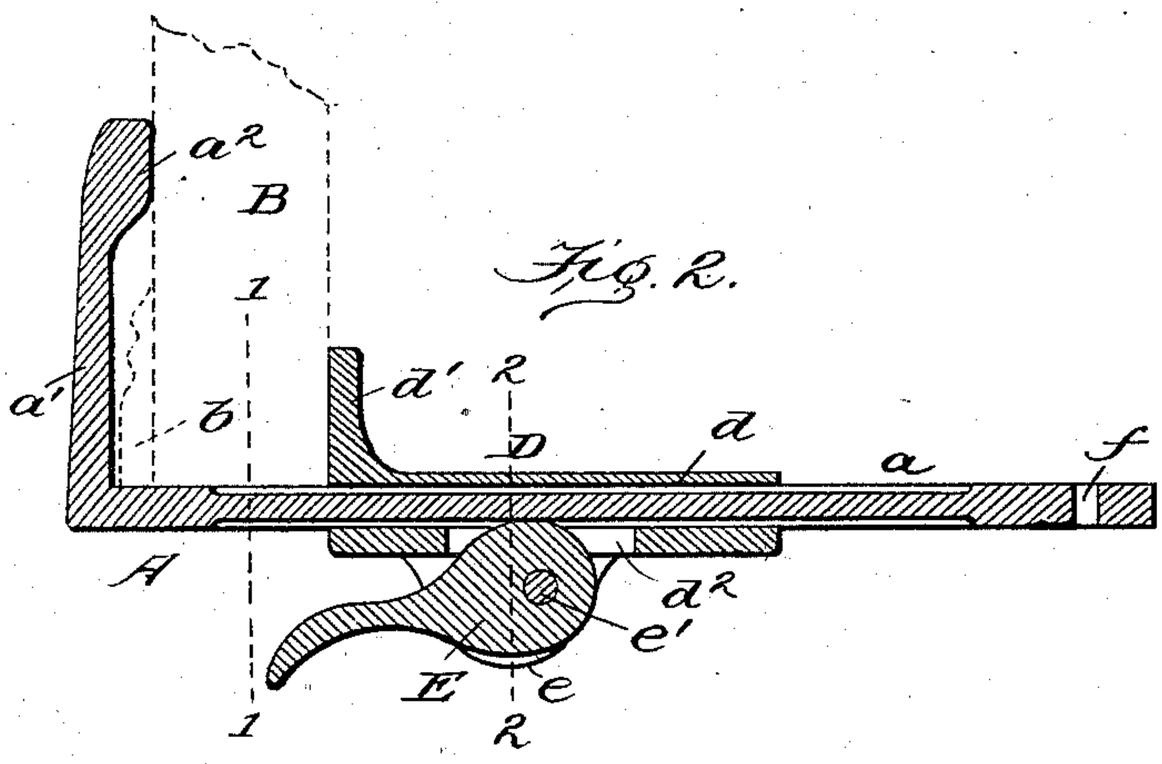


Fig. 3

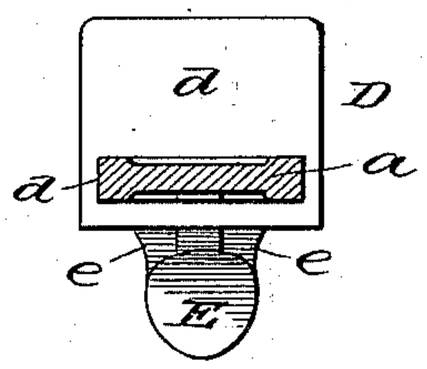
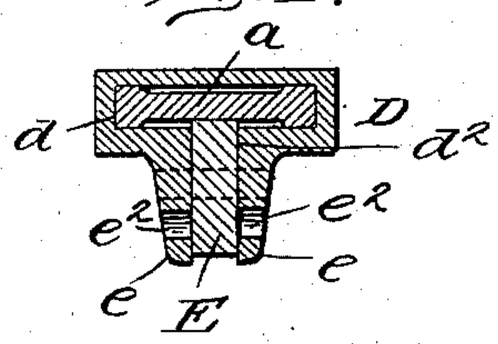


Fig. 4.



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BY J. R. Littell.

his ATTORNEY

(No Model.) 2 Sheets—Sheet 2.

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BRACE FOR BEDSTEADS.

No. 578,804. Patented Mar. 16, 1897.

Fig. 5.

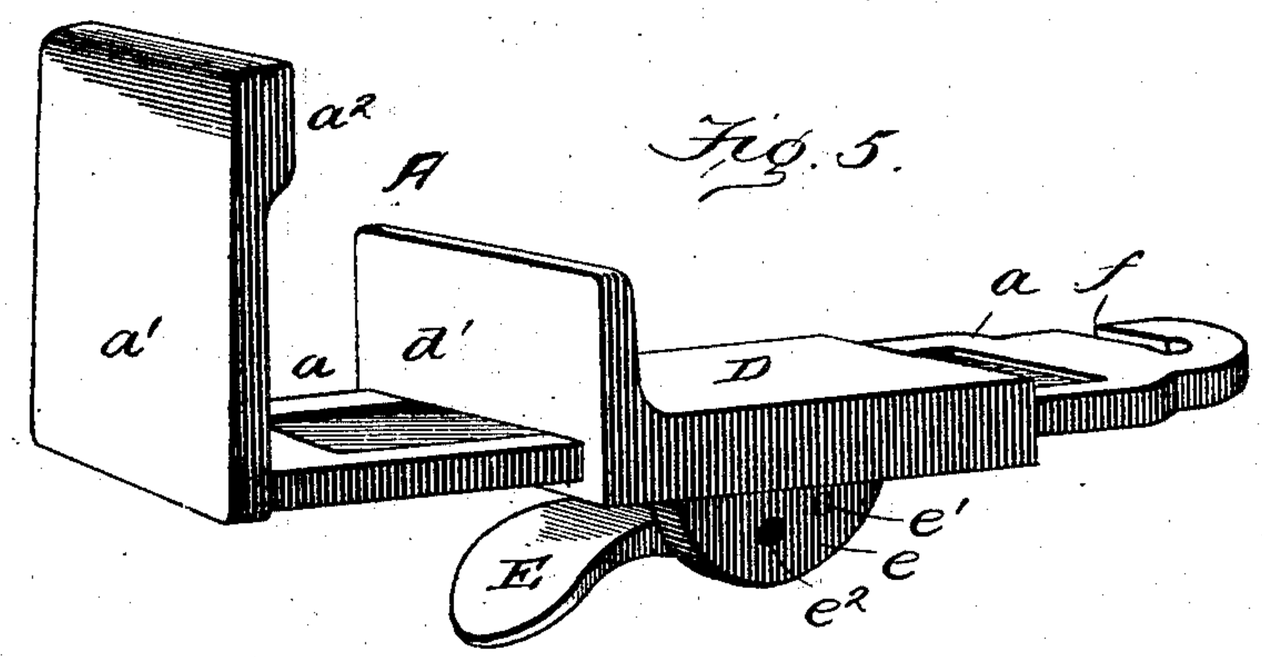
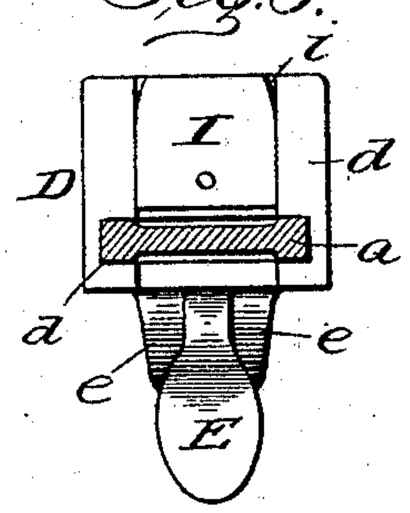


Fig. 9.



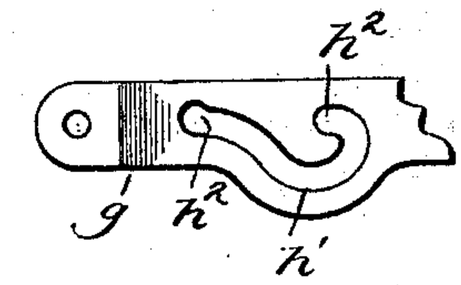


Fig. 6.

Fig. 7.

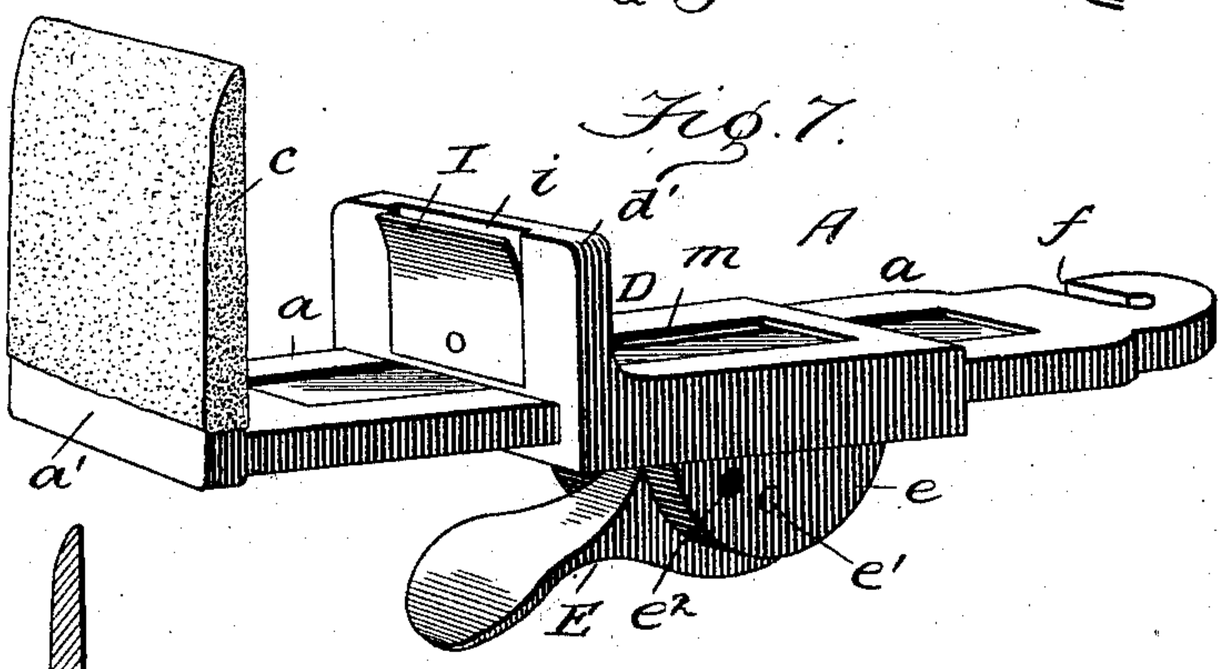


Fig. 10.

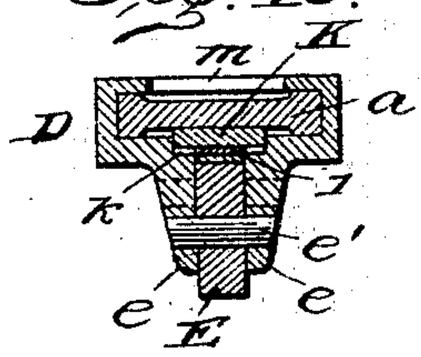
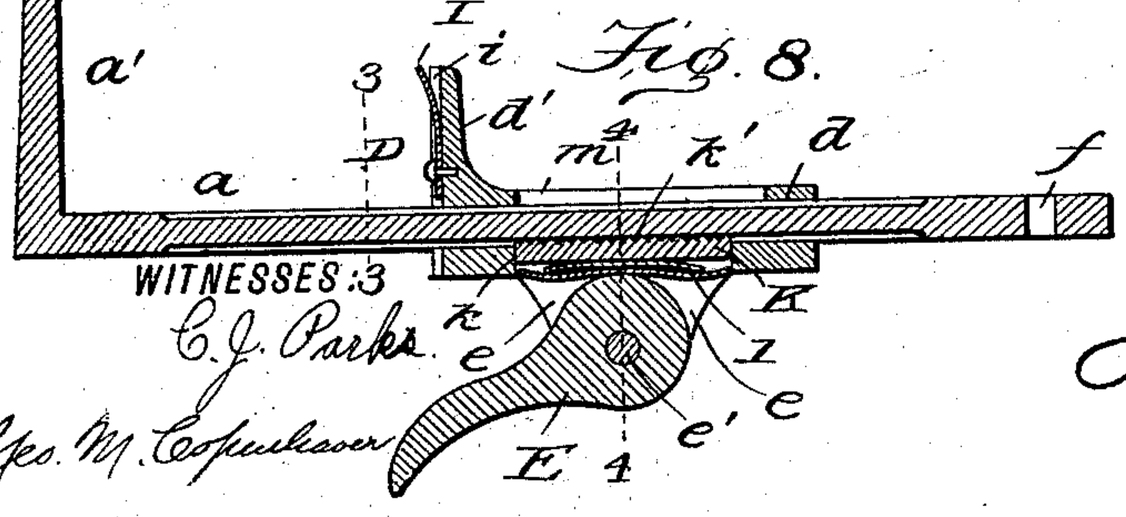


Fig. 8.



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UNITED STATES PATENT OFFICE.

JOSEPH F. ANDERSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

BRACE FOR BEDSTEADS.

SPECIFICATION forming part of Letters Patent No. 578,804, dated March 16, 1897.

Application filed June 3, 1896. Serial No. 594,060. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. ANDERSON, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Braces for Bedsteads; and I 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.

This invention relates to that class of bedstead-braces which embody chains or cords connected to devices attached to the bedstead-frame, the chains or cords being also connected to centrally-arranged or intermediate adjusting devices.

The object of my invention is to provide a simple and improved device of this class which will possess advantages in point of strength, effectiveness, convenience, adaptability, adjustability, inexpensiveness, and general efficiency, and which can be readily applied to or removed from various sizes or types of bedsteads.

In the drawings, Figure 1 is a perspective view showing my improved bedstead-brace in position. Fig. 2 is a detail longitudinal sectional view taken through one of the end clamps. Fig. 3 is a detail transverse sectional view taken on the line 1 1, Fig. 2. Fig. 4 is a detail transverse sectional view taken on the line 2 2, Fig. 2. Fig. 5 is a detail perspective view of one of the end clamps. Fig. 6 is a detail perspective view of the adjusting-lever in its initial position. Fig. 7 is a detail perspective view illustrating a modified form of end clamp. Fig. 8 is a detail longitudinal sectional view of the construction shown in Fig. 7. Fig. 9 is a detail transverse sectional view taken on the line 3 3, Fig. 8. Fig. 10 is a detail transverse sectional view taken on the line 4 4, Fig. 8. Fig. 11 is a detail perspective view of the adjusting-lever in reverse position. Fig. 12 is a plan view showing the slotted portion of the adjusting-lever.

Referring to the drawings, A A designate the end clamps, which comprise a body or base plate a, having at the outer end an upwardly-projecting flange a'. The clamping devices are arranged in position so that the base-plate a is located horizontally under the side piece B of the bedstead-frame, and the end flange a' bears against the outer face of said side piece, as shown. The inner face of the flange a' is preferably provided with an inwardly-projecting offset or enlargement a^2 at the top, which forms the bearing-surface and prevents marring of the molding-strip b, which is usually arranged at the bottom of the side pieces B of the bedstead. I prefer to also employ a covering c, Fig. 7, of suitable corresponding construction, formed of chamois-skin or other suitable material and adapted to fit over the flange a' to prevent marring of the bedstead-frame.

Rubber washers or cushions may be employed between the bearing-surfaces of the clamping device and the bedstead-frame, if desired.

D designates a slide carried upon the plate a and preferably constructed with a longitudinal slot or opening d, corresponding to the plate a and receiving the same, so that the slide embraces the plate. At the outer end of the slide is provided an upwardly-projecting flange d', adapted to bear against the inner face of the side piece B of the bedstead-frame, the side piece B being thus clamped between the flange a' of the base-plate a and the flange d' of the slide D. In the bottom of the slide D is provided a slot d^2, intersecting the slot d, and depending from the bottom at the sides of the slot d^2 are ears e e, between which is pivoted a cam-piece E upon a transverse pin e', so that the cam works through the slot d^2 and bears against the bottom of the plate a to lock or bind the slide D firmly in adjusted position. A series of two or more eyes or openings e^2 may be provided in the ears e e for the transverse pin e' to permit adjustment of the pin and corresponding adjustment of the cam.

F F designate two chains which have their outer ends respectively connected to the inner ends of the plates a a of the clamping devices at each side of the bedstead. This connection is preferably formed by a transverse recess f, formed in the inner end of the plate a, which recess is engaged by the link of the chain.

The inner ends of the chains are respectively connected to pivotally-mounted plates G' and G², carried upon a lever G, this connec-

tion being preferably formed by transverse recesses g' and g^2, respectively, formed in the ends of said plates and adapted to be engaged by the link of the chain. The fulcrum end of the lever is preferably bent at an angle, as shown at g^3, to provide for the passage of the pivotal plates with relation to each other. The end plate G′ is pivotally mounted upon the end of the lever beyond the angle or bend g^3, while the plate G^2 is pivotally mounted upon the lever in rear of said angle or bend, and the plate G^2 is also preferably provided with an angle or bend g^4, so that its outer end is brought within the same plane as the end lever G′. The plates are mounted at opposite sides of the lever-bar G and are in divergent position, as shown in the first position in Fig. 6, when the chains are slack. To tighten up the chains and brace the bedstead-frame, the lever is carried around to the reverse position, (shown in the second position in Fig. 6,) in which operation the pivots of the plates form fulcrums for the lever and the plates are drawn toward each other, thus tightening the chains. When the lever is thus carried to reverse locking position, the fulcrum end of the lever rests between the two plates, as shown, and to provide for locking the lever in this reverse position with the chains taut angular brackets or catches g^5 g^5 are arranged to project at opposite sides of the lever-bar in rear of the fulcrum end, which brackets are engaged with the chain connected to the end plate G′, as shown in the second position in Fig. 6.

To enable a further adjustment of the plate G^2 to further take up the chain when desired, the pivot pin or rivet h of the plate may be arranged in a curved slot h' in the lever-bar G, this slot being formed on a longitudinal plane and having end recesses h^2 h^2 at an angle to its main portion, in which end recesses the pivot-pin h is adapted to rest at the termini of the respective initial and reversed positions.

In Figs. 7, 8, 9, and 10 I have shown modifications in the detail construction of the end clamp. The bearing-face of the flange d' of the slide D may be provided with a spring-plate I, working in a recess i in the face of the flange. I have also shown the slide with an interior recess k at the slot d^2, adapted to accommodate a corresponding block or plate K, having a serrated inner face k', which bears against the bottom of the plate a, the block or plate K being forced into engagement with the plate a by the cam-piece. Suitable bowed spring-plates l may be interposed between the cam and the block K in the slot d^2, and the top of the slide D is slotted or of open construction, as shown at m, to enable handling of the block K when the slide is removed from the plate a.

The operation and advantages of my invention will be readily understood.

The device is simple and effective, easy of operation and adjustment, and may be conveniently and readily detached from or attached to all types of bedsteads. The end clamps, lever, and chains are also readily detachable for convenience in adjustment and transportation.

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

1. An improved bedstead-brace, comprising end clamping devices embodying a base portion or plate having an upwardly-projecting flange at the outer end and provided with an adjustable slide, the side piece of the bedstead-frame being adapted to be clamped between said flange and the slide, chains extending from said clamping devices, and an intermediate lever having pivotally-mounted plates to which are respectively connected the ends of the chains, substantially as and for the purpose set forth.

2. An improved bedstead-brace, comprising end clamping devices embodying a base portion or plate having an upwardly-projecting flange at the outer end and provided with a slide adjustable upon said base portion, the side pieces of the bedstead-frame being adapted to be clamped between said flange and the slide, means for securing the slide in adjusted position, chains extending from said clamping devices, and an intermediate lever having a pivotally-mounted end plate and a plate pivotally mounted in rear of said end plate, the ends of the chains being respectively connected to said pivotally-mounted plates, substantially as and for the purpose set forth.

3. An improved bedstead-brace, comprising the end clamping devices embodying the base portion or plate having an upwardly-projecting flange at the outer end and provided with the slide embracing said base portion and carrying a pivoted cam-piece adapted to bear against said base-plate, the sides of the bedstead-frame being adapted to be clamped between said flange and the slide, the chains connected with the clamping devices and extending therefrom, and the lever having the pivotally-mounted end plate and the plate pivotally mounted in rear of the latter, said plates being on opposite sides of the lever and respectively connected to the chains, substantially as and for the purpose set forth.

4. In an improved bedstead-brace, comprising the chains adapted to extend from the bedstead-frame, the intermediate lever carrying pivotally-mounted plates at its fulcrum end to which plates the chains are respectively connected, the pivot pin or rivet of the plate being arranged in a longitudinally-disposed slot formed in the lever-bar and having end recesses, substantially as and for the purpose set forth.

5. An improved bedstead-brace, comprising chains adapted to extend from the bedstead-frame, and an intermediate lever carrying pivotally-mounted plates or links respectively connected to the chains, the lever being

adapted to tighten up the chains when it is carried around to reversed position, substantially as and for the purpose set forth.

6. In an improved bedstead-brace, clamping devices embodying the base portion or plate having the upwardly-projecting flange at its outer end, the slide embracing said base portion and slotted, substantially as set forth, and a cam-piece pivotally mounted upon said slide and bearing against the base portion, in combination with chains extending from said clamping devices, and means for tightening said chains, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH F. ANDERSON.

Witnesses:

J. R. LITTELL,

C. J. PARKS.