(No Model.) 2 Sheets—Sheet 1.

E. H. RIMMELIN.

FOLDING COT OR BEDSTEAD.

No. 589,482. Patented Sept. 7, 1897.

Fig. 1.

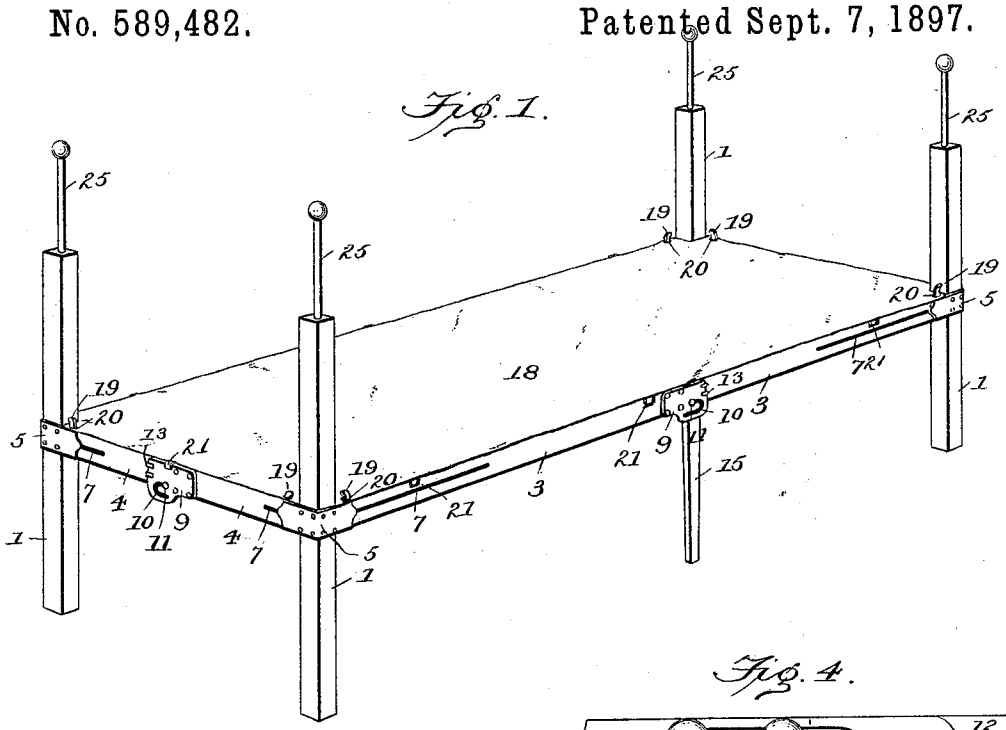


Fig. 2.

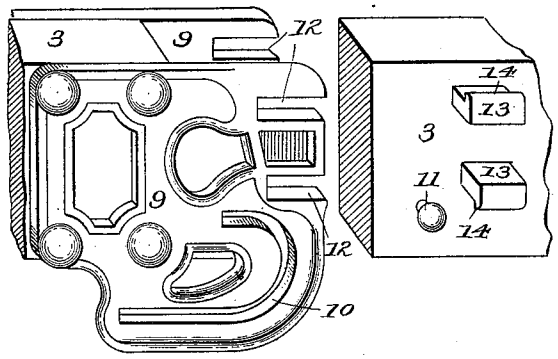


Fig. 4.

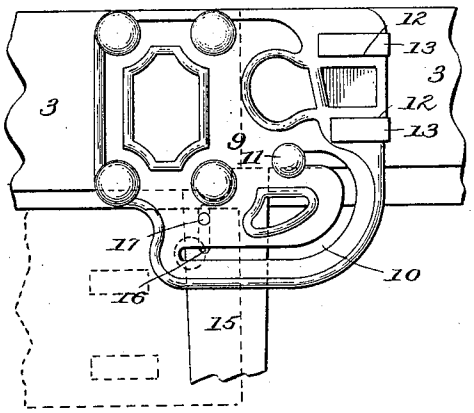


Fig. 10.

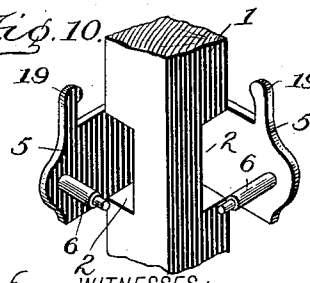
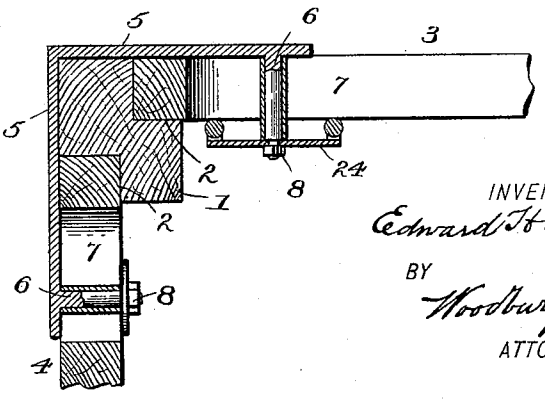


Fig. 3.



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(No Model.) 2 Sheets—Sheet 2.

E. H. RIMMELIN.

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Fig. 5.

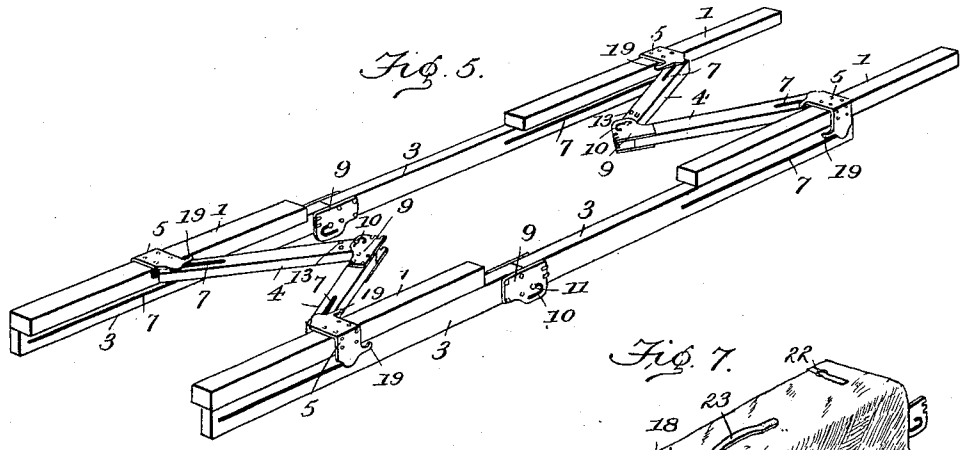


Fig. 7.

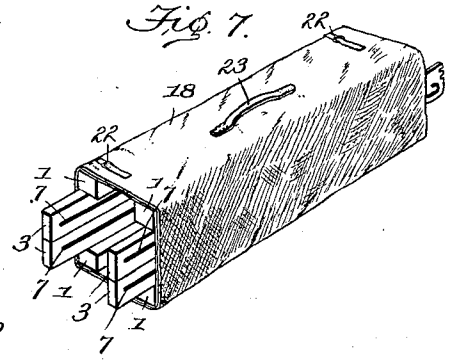


Fig. 6.

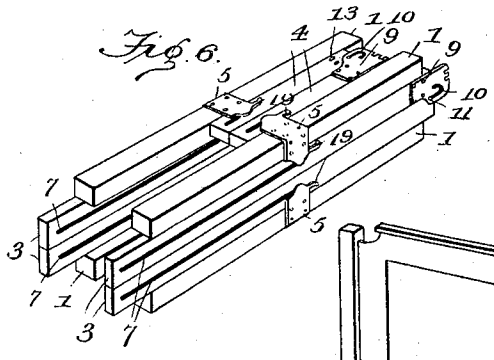


Fig. 9.

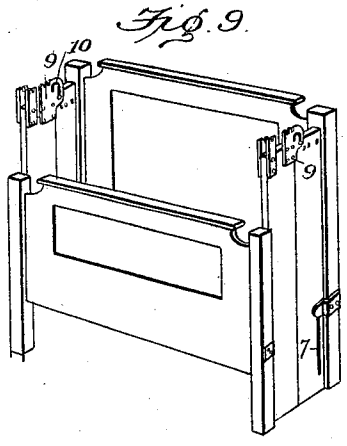


Fig. 8.

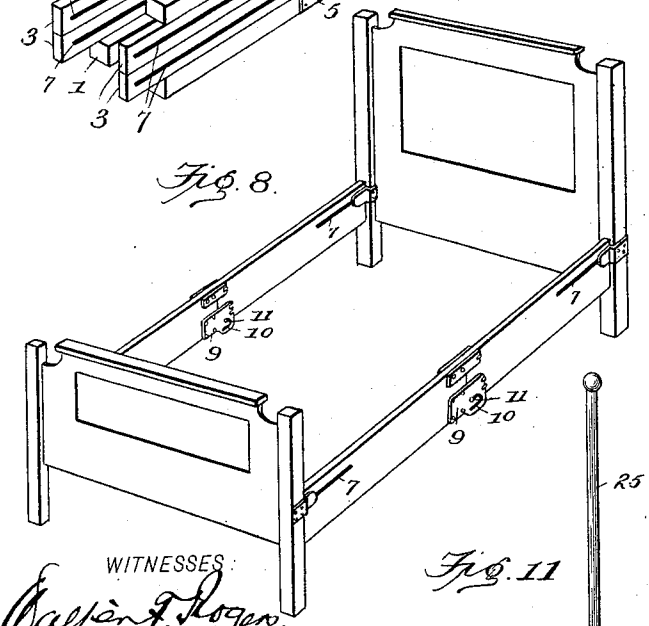


Fig. 11

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UNITED STATES PATENT OFFICE.

EDWARD HENRY RIMMELIN, OF GALVESTON, TEXAS.

FOLDING COT OR BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 589,482, dated September 7, 1897.

Application filed December 12, 1896. Serial No. 615,488. (No model.)

To all whom it may concern.

Be it known that I, EDWARD HENRY RIMMELIN, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented certain new and useful Improvements in Folding Cots and Bedsteads, of which the following is a specification.

My improvement is directed to the production of cots and bedsteads wherein the side and end rail parts are permanently connected mediately of their length in a manner to permit of the folding thereof to form a compact bundle for handling when not in use and a strong and firmly-braced structure when set up to support the sacking bottom for the bed.

In such a folding cot my improvement consists of a novel construction of the joint-forming irons for the mediate folding joints of the rails and for the posts, whereby all the parts are adapted for being folded in a novel way for storage and for camp purposes; and in these particulars my said improvements will be specifically set forth in the claims concluding this specification.

The drawings herewith illustrate my improved folding cot and bedstead, wherein—

Figure 1 shows in perspective the cot as set up with the sacking bottom for use. Fig. 2 shows in perspective the mediate pivotal joining-iron and rail parts as separated to illustrate the supporting and pivotal construction of such joining. Fig. 3 is a horizontal section taken through the joint-forming angle-iron and its post and rail connecting parts. Fig. 4 shows the mediate joint-forming iron and rail parts when locked to support the joint of the rail-sections. Fig. 5 shows in perspective the cot-frame and the manner of folding the end rails mediately between the side rails. Fig. 6 shows the pivotal joined parts compactly folded into a bundle, and Fig. 7 is a like view showing the folded frame as inclosed for being carried by the sacking bottom and for convenient handling; Fig. 8, in perspective, a bedstead embracing my improvements; and Fig. 9, a like view of the bedstead as folded. Fig. 10 shows the post angle-iron to which the side and end rails are pivoted and the hooks for the sacking bottom, and Fig. 11 shows the mosquito-bar post.

The side and end rails are each jointed for being folded mediately of their length. Each rail part is jointed with the posts in a manner to permit the end-rail parts to be folded between and with the side rails and the posts upon the side-rail parts.

Provision is made for sliding the posts upon the side-rail parts, and in this relation the folded posts and rail parts are brought together within the length of the side rails, which are folded like a two-foot rule. In this relation of the parts the side rails are folded upon each other lengthwise, forming a compact bundle, having a length half that of the frame when set up. The joint-forming irons, whereby this folding is permitted, are constructed as follows:

The posts 1 are each provided with a mortise 2 to receive the ends of the side and end rails 3 and 4, and at these mortises an angle-iron 5 is secured to each post. These irons are of right-angle form and project from two sides of the post, with a pivot-bolt in each projecting end and a hook on each end. To these irons the ends of the side and end rails are pivoted by strong bolts 6, which pass through slots 7 in the rails and are clamped thereto by nuts 8. The slots 7 are made lengthwise of the rails, the slots in the side rails being longer than the slots in the end rails for a purpose which I shall presently state. The joint-forming irons for the rails are of like parts, two for each joint. In pairs they are formed of plates 9, secured to the meeting end of one of the rail parts, so as to project therefrom and form a sort of socket or jaw for the meeting end of the other rail part. That part of these irons which projects below the rails is formed with symmetrical slots 10, through which a strong bolt 11 passes for securing to and within the jaw of the irons the meeting end of the other rail part, and on which bolt the ends of the rail parts are caused to abut against each other within the jaw between the irons and to coöperate with the bolt to sustain the joint under the weight of the occupant. In this abutting relation of the rail parts the bolt 11 and the upper horizontal ends of the curve of the slots form a support and a lock and prevent the separation of the rail parts. For this purpose the slots approximate the form of a horseshoe, the upper straight end portion

forming the lock for holding the abutting rail ends together, as in Fig. 4, and the lower part of the slot terminating in straight part, forming a free way for the bolt in flexing the joint in folding the rail parts, so as to bring their under edges contiguous when folded and with the bolt in the lower straight parts of the slots, as shown in Fig. 6. For reinforcing the supporting function of the bolt and bracing the joint-forming parts laterally the projecting parts of the irons are provided with slots 12, parallel to each other and opening at the edge of the iron above the slots 10, and the meeting end of the other rail part on the opposite sides are provided with projections or tongues 13, adapted to engage the slots 12 when the rails are in abutting relation and thereby form a series of engaging abutments for the joined rail ends and increasing the strength of the joint. These parallel slot-engaging projections 13 have lips 14, adapted to engage the outer sides of the irons at the edges of the slots 12 and give a binding action upon the irons to increase the firmness of the joint. There may be one or more of these reinforcing-supports in the irons, and if deemed necessary for greater strength there may also be separate interlocking parts on the meeting ends of the rails above the joint-forming irons, particularly for bedsteads having much wider side rails, as shown in Figs. 8 and 9.

It is to be noticed that while the slots are formed to bring the pivot-bolts in supporting position on the iron the slots are also formed to permit the sliding engagement of the rail ends to bring them in abutting relation and the projections 13 of one rail part into engagement with the irons of the other rail part. This provision of the slots also permits the separation of the rail projections with the irons in folding the rails.

For reinforcing the joint-forming irons I provide prop-legs 15, pivotally connected to and between the joint-forming irons beneath the side rails, as seen in Figs. 1 and 4. For this purpose the under edges of the side rails 3 at their meeting ends are recessed to receive the end of the leg, so that the end of each rail part rests upon the leg. To allow the leg to be folded with the rail parts and to be vertically set at the joint, the legs are provided with a slot 16, through which its pivot-bolt 17 passes and on which the legs swing into position when the cot is set.

In erecting the frame the rails are driven into the post-mortises. In this operation the meeting ends of the rails come into abutting and joint-forming relation, the props at the side rails fall into supporting position, and the frame is ready for the sacking bottom for the bed. As a means for supporting the sacking bottom 18 the angle-irons of the posts are formed with hooks 19 on their projecting ends, with which eyelets 20 in the corners of the canvas engage at the side and end rails, as in Fig. 10. To the corded edge of the canvas are secured hooks 21, which engage the upper edges of the rails and support the sacking bottom, as in Fig. 1.

To fold the frame, the rails are pulled from the post-mortises by the provision of the slots in the rails. The posts at both ends are then folded down upon and in line with the side rails. This places the end rails and their joint-forming irons so that they can also be folded in line with the posts between the side rails. This rail-folding is made by pulling the rail projections 13 out of engagement with the slots 12 of the irons. The posts are then slid on the side rails to bring the posts within the length of the rails, the long slots in the latter allowing the bolts of the angle-irons to slide in said slots, as shown in Fig. 5. The side rails are then in like manner pulled apart to disengage the projections 13 from the irons and the rails folded upon each other, as shown by dotted lines in Fig. 4, to bring them within half their length and in form like the bundle seen in Fig. 6. In this form the sacking bottom is wrapped around it and buckled by the straps 22 and carried by the handhold-loop 23.

To prevent binding of the bolts in the slots in sliding the legs upon the rails, plates 24, with rolls, may be used on the bolts as rolling washers, as seen in Fig. 3.

It is obvious that for bedsteads the head and foot boards without mediate joints may be substituted for the end rails, in which case the head and foot boards will be jointed only to the side rails, as seen in Fig. 8, and folded as seen in Fig. 9. For cots provision is made for using a mosquito-bar by rods 25, which are fitted into bores in the posts and held therein by springs, as seen in Fig. 11.

The rails may be shouldered to form tenons to enter the mortises.

I claim as my improvement—

1. In combination with the rails of a cot or bedstead, the mediate folding joints of the rails pivotally connecting their meeting ends, consisting of separate iron parts secured to one of the rail-sections, forming a projecting end socket or jaw, each iron part having a symmetrical slot, and a pivot-forming bolt on the other rail-section transversely engaging said slots, the latter being formed to allow the movement therein of the bolt to permit the abutting engagement of the rail parts within the jaws of the irons and to allow the pivot-bolt to move in said slots and engaging supporting parts formed by slots in the irons and projections on the sides of the meeting rail-section.

2. In a folding cot or bedstead, the combination with the mediately-jointed rails, of joint-forming irons consisting of plates fixed in pairs to the opposite sides of one of the rail parts, forming a projecting end socket or jaw, and coincident slots in said socket-forming parts, curved as described, the other end of the meeting rail part having a bolt passing transversely through said slots, forming

a pivot connection and support for the meeting rail ends within the socket-forming irons, and a prop-leg pivoted to the socket-forming irons and adapted to be folded with the rail parts.

3. As a new manufacture, a folding cot-frame for beds, consisting of the side and end rails jointed mediately of their length and each rail part jointed also to the posts, the said mediate joints being formed by irons having curved slots and fixed on one of the rail parts and bolts engaging said slots fixed upon the other rail part whereby the rails are adapted for sliding engagement endwise with each other and with the posts, at such joints and for folding the rail-sections and the posts together in the way and for the purpose stated.

4. In a cot or bedstead, the combination of the posts and the rails, with the angle-irons for pivotally connecting the posts and rails, having hooks at opposite sides of the posts for engaging and supporting the sacking bottom and bolts for engaging the rails.

5. In a folding cot or bedstead having rails jointed mediately of their length, the joint-forming plates 9, 9 secured to and forming a socket at the meeting end of one of the rail parts, each plate having coincident parallel slots 12 in the line of the rail open at the projecting edges of said plates, the other meeting rail part having on its opposite sides projections or tongues 13, formed with lips 14 and adapted to engage the plates at the slots by a sliding movement to bring the rails in abutting relation, the said plate having slots 10 below the slots 12, and a bolt 11 in the rail part having the projections 13, the said slots 10 being in coincident relation and having a form adapted to allow a sliding of the rail parts toward and from each other and to bring the bolt in the upper part of said slots 10 in which it forms a support for the rail ends.

6. In a folding cot or bedstead having rails jointed mediately of their length, a hinge or joint therefor consisting of double slotted irons, forming a jaw on the meeting end of one of the rail parts, and a bolt on the meeting end of the other rail part engaging the slots of the double irons, whereby the bolt-containing rail ends are adapted to be supported within the jaws in abutting relation.

7. In a folding cot or bedstead having rails jointed mediately of their length, the joint-forming irons consisting of a pair of plates bolted to and projecting from each side of the meeting end of one rail part and forming a socket or jaw, each plate having slots in their projecting edges, the slots of each plate being coincident, in combination with tongues on the opposite sides of the other meeting rail end adapted to enter the said slots in joining the rail ends and a suitable pivotal connection of the tongued rail, with the said slotted plates, whereby the jointed ends of the rails are secured and braced within the socket or jaw.

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

EDWARD HENRY RIMMELIN.

Witnesses:
JOHN WILLIAMS,
B. M. HIXSON.