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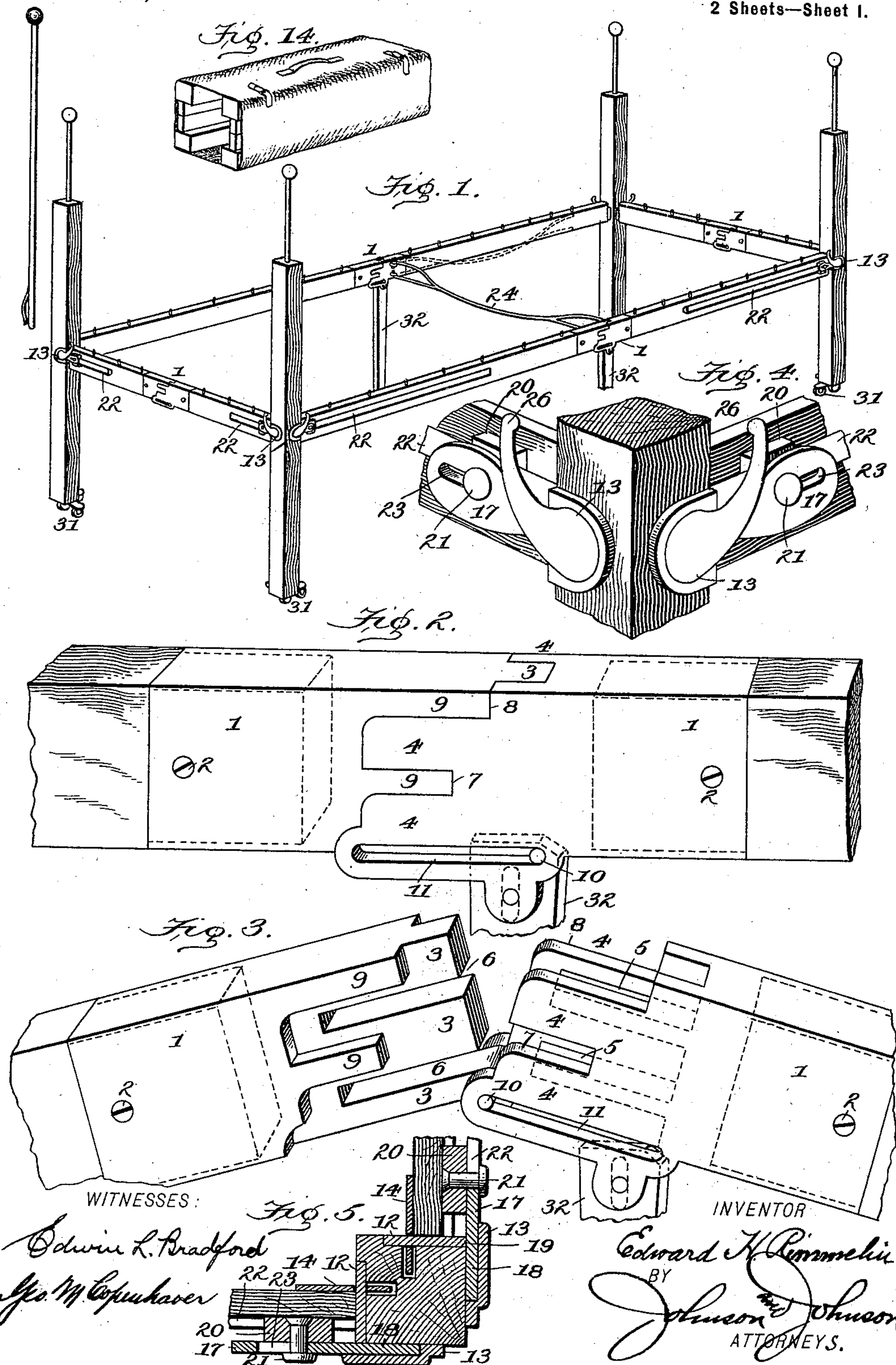
Patented July 19, 1898.

E. H. RIMMELIN.
FOLDING COT OR BEDSTEAD.

(Application filed Sept. 20, 1897.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

Edwin L. Bradford
Geo. W. Coppenhaver

INVENTOR

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ATTORNEYS.

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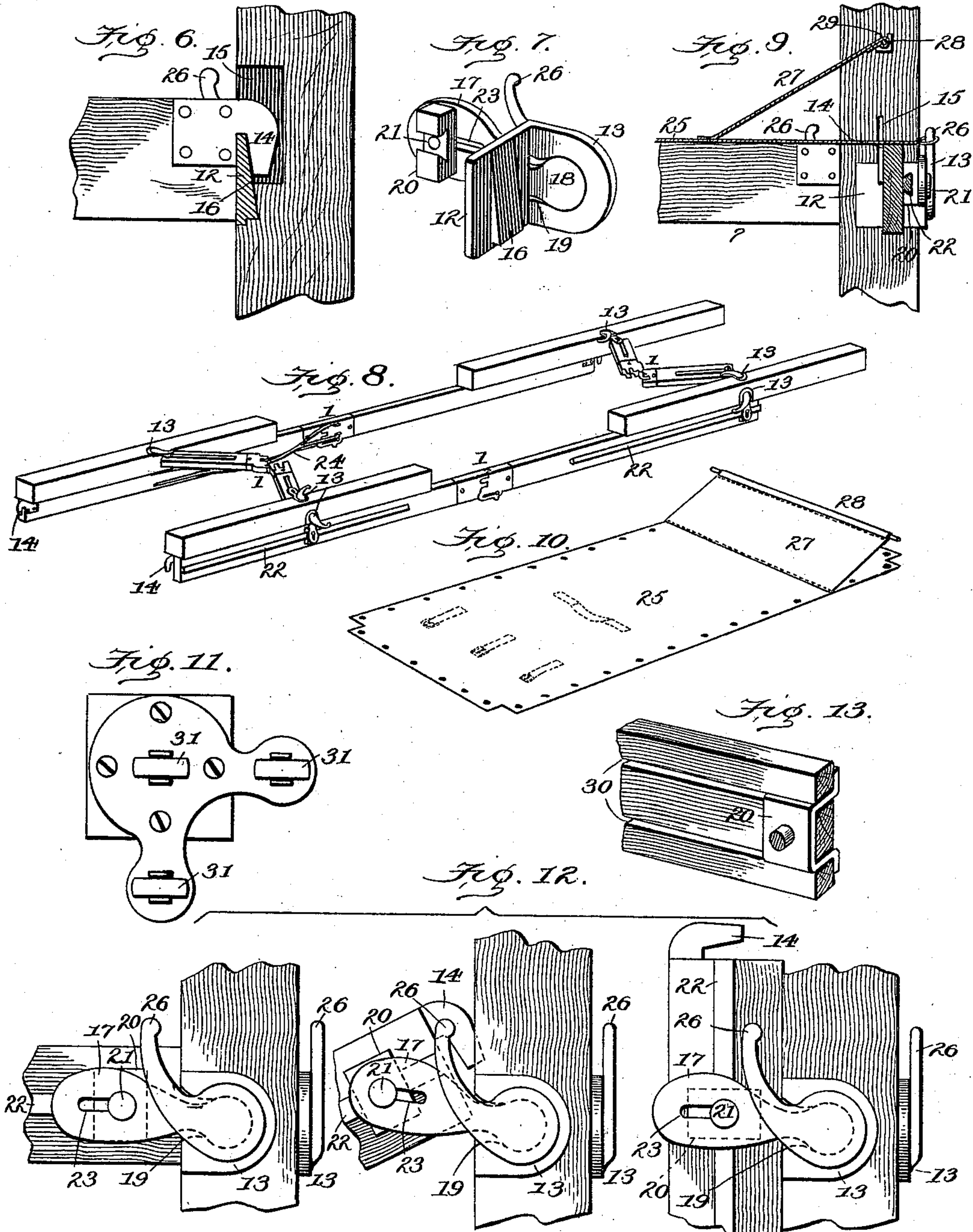
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UNITED STATES PATENT OFFICE.

EDWARD H. RIMMELIN, OF GALVESTON, TEXAS.

FOLDING COT OR BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 607,607, dated July 19, 1898.

Application filed September 20, 1897. Serial No. 652,289. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. 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 or Bedsteads, of which the following is a specification.

For cots and bedsteads wherein the rails are adapted to be folded mediatly of their length and upon and with the posts I have made certain improvements of construction and of combinations whereby the joint-forming parts may be readily and compactly folded when not required for use and firmly braced when the structure is set up for use.

The improvements embody novel constructions of joint-forming irons for the posts and for the mediate joints of the rails, whereby the structure may be folded for convenient carriage and storage and made firm and strong when erected. In these and other particulars my improvements will be specifically set out in the claims concluding this specification.

The drawings herewith illustrate my improved folding cot-frame, wherein—

Figure 1 shows the frame as set up, but without the sacking bottom. Fig. 2 shows the mediate joint-forming irons of the rails in the closed locked position of the joint. Fig. 3 shows the rail joint-forming irons as opened for folding the rails. Fig. 4 shows one of the posts and its joint-forming irons for the side and end rails. Fig. 5 is a horizontal section of the same. Fig. 6 is a vertical section of the same. Fig. 7 shows in perspective the inner side of one of the post joint-forming irons. Fig. 8 shows the posts folded with the side rails. Fig. 9 is a vertical section showing the pillow-flap of the sacking bottom. Fig. 10 is the sacking bottom. Fig. 11 shows the three-caster device whereby the posts are supported in erecting and folding the bedstead. Fig. 12 shows detail views of the way in which the rail is hooked into the post and unhooked and folded with it, the middle view showing the rail in position on its swing-arm to engage the hook with the keeper of the post angle-iron. The view to the left shows the swing-arm and its pivotally-connected rail in position when its hook is engaged with the keeper of the angle-iron, and the view to the

right shows the rail folded with the post while maintaining its pivoted connection with the swing-arm of the angle-iron. Fig. 13 is a modified form of the sliding rail and post connection, and Fig. 14 shows the cot-frame as folded within the sacking bottom.

The rails are adapted for being folded edgewise with each other mediatly of their length, and for this purpose I have devised the following construction of joint-forming irons.

The meeting end of each rail has an iron preferably formed with a box end 1 1, and within which it is secured by a screw 2 or otherwise. The meeting ends of these irons are adapted for interlocking engagement to form a stiff joint, and they are pivotally connected to allow the rails to be folded together edgewise. One of these irons has a web forming two or more tongues 3 3, which are adapted to fit with and between the walls of the jaw-tongues 4 4 of the other iron, so that when the irons are joined the web 3 and the jaw-tongues 4 render the joint rigid sidewise of the rail. The jaw-tongues 4 have web-tongues 5 5 between their walls, and the web-tongues 3 have openings 6 6, into which the jaw web-tongues 5 fit, while the jaw-tongues 4 have openings 7 7 and a top recess 8 to receive tongues 9 9 on the opposite sides of the web-tongues 3, so that when the irons are joined the jaw web-tongues 5 5 and the web side tongues 9 9 render the joint rigid in the folding-line. When the irons are thus joined, the tongues interlock and abut. These irons are pivotally connected at the lower edge of the rail by means of a pivot 10 on the web-tongue 3 and slots 11 in the lower jaw-tongues 4, whereby the interlocking irons can be pulled apart to separate their tongues and turned upon the pivot 10 to fold them edgewise.

The posts are adapted to be folded with the rails, and for this purpose I have devised a novel construction of joint-forming irons. For each rail I provide an angle-iron, Fig. 7, adapted to fit upon two sides of the post, one side 12 of the angle-iron being on the inner side of the post and the other side 13 on the outer side of the post. The inner angle side 12 is preferably mortised within the post and forms the part with which the rail engages, as in Fig. 6. For this engagement

the end of the rail is provided with a hook 14, and the post has a mortise 15 to receive the hook, so that it will engage a wedge 16 on the inner wall of the angle side 12, and thereby draw and keep the end of the rail firm against the outer wall of the angle-iron. The outer angle side 13 has an arm 17, which projects so as to lap with the outer side of the rail and pivotally engage both the rail and the angle-iron, as in Fig. 4. The pivotal engagement of this arm with the angle side 13 I prefer to make by seating the circular end 18, Fig. 7, of the arm in a corresponding recess in the inner wall of the angle-iron, so that this arm extends from its pivot-forming seat through a slot 19 at the angle, and the pivotal movement of this arm is limited within this, and to allow the post to be folded with and upon the rail and to allow the arm to have such limiting movement the pivoting-seat of the arm is made flaring at the slot. This pivoting of the arm, however, can be made by a pin. The pivoting of the other end of this arm to the rail I prefer to make by a separate slide 20, Fig. 7, pivoted to the arm by the pin 21 and dovetailed to engage a corresponding rib 22 on the outer side of the rail, and on this rib the pivoted dovetail slide 20 is slid in folding the post parallel with the rail, as in Fig. 8. In erecting the bedstead the rail is raised with its pivoted arm, which is thereby caused to swing upward, so as to bring the hook in position to be inserted into the post-mortise, as seen in Fig. 12, and when the hook is inserted and forced down into the mortise the pivoted arm 17 moves down with the rail, as in Fig. 6. In this way the swing of the arm upon the post gives freedom for engaging and disengaging the rail-hook with the post, while the pivoting of the rail to the arm 17 allows the post to be folded parallel with the rail, as in Fig. 12. When thus folded, the slot 23 at the pivot 21 of the arm allows the rail to be folded against the post for compactness, while the slide connection 20 of the swing-arm with the rail-rib 22 allows the post to be slid upon the side rail to bring the full length of the post within the length of the rail.

Referring to Figs. 1 and 8 will be seen the way in which one or more transverse bars 24 are used as braces to support the rails at their meeting joints. This bar 24 is hinged to the inner side of one of the joint-forming irons, and is adapted to engage, by a pronged end, holes in the other joint-forming iron to brace the rails, and for this purpose I may use two or more braces at the joints, so that they can be folded with the rails.

The sacking bottom 25 may be secured to the rails by pins and to hooks 26 on the post-irons. The sacking bottom is provided with a sewed-on pillow-flap 27, which when the bedstead is erected is raised at the head of the bed and supported by a rod 28, resting in lugs 29 on the posts.

As a modification of the provision by which

the posts may be slid upon and folded with the rails the slide, instead of engaging a rib on the rail, may engage slots in the rail, and for this purpose the slide 20 may be an angle-plate pivoted to the arm and bent and passed through slots 30, so as to engage the inner side of the rail, the slots allowing the slide to move with the post on the rail, as in Fig. 13.

In taking down and erecting the frame the operation is rendered more convenient by providing each post with a three-caster device, whereby it is supported while unhooking the rails or while erecting the frame. For this purpose one of the casters is central with the post and the other two stand away from the post on the sides with which the rails engage, so that in making or in separating this engagement the post will be prevented from falling. When erected, these three-caster supports give greater firmness to the structure because of the position of a caster beneath and in the line of the rail. This construction also gives the advantage of first standing the posts and then hooking thereto the rails, while in unhooking the rails they will hang by their pivotal connection with the post-arms as the posts stand and thereby make it more easy to separate the mediate joints for folding the structure. This construction is especially advantageous for bedsteads having head and foot boards, in which case the end rails are not mediate jointed.

When folded, the posts will be slid upon the side rails, the end rails folded edgewise inward upon the posts, the transverse brace folded against the rail, and the side rails folded at their mediate joints edgewise upon each other, bringing the parts together compactly, so that they may be wrapped and bound together by the sacking bottom and carried as a bundle.

Looking at Figs. 2 and 3 it will be seen that the pivotal connection of the joint-irons is not subjected to pressure and that the slots being straight the pin serves as a pivot on which the rail-joint is separated to allow the rails to swing apart and be held together in folding them. Looking at the posts the pivot-joint connections of the rails with the arms are subjected to no pressure, but are to allow the rail-hooks to be swung into and out of the post-mortises and to hold the rails and arms together. Nor are the swing-arms subjected to pressure, but serve to hold the rails and posts together, while the rail-hooks support the weight and bind the posts and rails together.

Prop-legs 32 are pivotally connected to the jaw-forming irons at the joints of the side rails and at the lower edge of the irons for giving a firm vertical support to the rails at these joints, while the transverse brace gives a firm sidewise support to the rails at their meeting ends.

I claim as my improvements—

1. In a cot or bedstead the combination with the rails having the hooks and the posts

having mortises, of the angle-irons each having one side crossing the post-mortises for the engagement of the rail-hooks, a swing or pivoted arm connected to the other side of each angle-iron, and a slide pivotally connecting the other end of each arm and the rail whereby the rails are secured to the angle-irons and the posts adapted to be folded with and slid upon the rails in folding the structure.

2. In a folding cot or bedstead, the combination, with the rails having longitudinal ribs and end hooks, and the posts, of angle-irons fixed to the posts and adapted by one part to form the keeper for the rail-hook, a swing-arm seated in a circular recess on the wall of the other angle part, and extending in lapping relation to the rail, and a slide pivoted at the outer end of said arm and adapted to engage the rail-rib, whereby the rails and posts may be firmly joined and folded in the way stated.

3. The combination in a folding cot or bedstead, of rails having hooks and posts having mortises, of angle-irons each having one side crossing said mortises for engaging the hooks, a swing-arm seated on the inner wall of the other side of each angle-iron and having a slot in its outer end, a slide having a dovetail groove pivotally connecting said slotted arm and engaging a dovetail rib on the rail for the purpose stated.

4. In a folding cot or bedstead, the combination, with the rails having longitudinal ribs and hooks and posts having angle-irons adapted for engagement by the rail-hooks, of swing-arms secured in seats between said angle-irons and the posts and slides pivoted to said arms and movable upon the rail-ribs for the purpose stated.

5. The combination, with the posts having mortises, and rails having hooks, of angle-irons for the posts having fixed wedge-engaging parts for the rail-hooks, swing-arms loosely seated in said angle-irons and a slide device for each arm adapted to engage the rail with a sliding connection and the arm with a pivotal connection for the purpose stated.

6. In a cot or bedstead, the combination, with the rails having side ribs and end hooks,

and the posts, of the angle-irons fixed to the posts, one of its angle sides having a wedge form for engagement as a keeper with the hook, the other angle part having a circular recess on its inner wall, and a swing-arm seated and retained within said recess, projecting through a slot at the angle of the iron for limiting its swing, and a slide pivoting the swing end of said arm and adapted to have a sliding engagement with the rail.

7. In a folding cot or bedstead having rails jointed mediately of their length, the combination with joint-forming irons fixed on the meeting ends of said rails and adapted for interlocking engagement to form a stiff joint, of a brace hinged to the box-iron of one of the rails, and having its other end pronged for engagement with the box-iron of the other rail, the said brace folding with one of the rails for the purpose stated.

8. In a cot or bedstead, the combination with the rails having ribs and end hooks, and the posts, of angle-irons fixed to the posts, one of its angle parts having a hook 26, and a circular recess on its inner wall, the other angle part having a wedge 16, adapted to engage the rail-hook with a drawing action, a swing-arm seated in the said recess, extending through a slot at the angle of said iron and having the slot 23, and the slide pivoted within said slot for engagement with the rail.

9. In a folding cot or bedstead having rails jointed mediately of their length, the joint-forming irons, consisting of a box fixed on the end of each rail part, one of the box parts having the outside vertical tongues 4, the inside horizontal tongues 5, and slots 7, the other tongue part having the inside tongues 3, the slots 6, and the outside tongues 9, one of said boxes having coincident slots, the other having pivots engaging said slots, whereby each box part has both outside and inside vertical and horizontal engaging parts to form a sliding joint rigid in every direction.

In testimony whereof I have hereunto signed my name in the presence of witnesses.

EDWARD H. RIMMELIN.

Witnesses:

W. C. WILLIAMS,
E. A. FORDTRALL.