June 25, 1929. F. KUSTERLE 1,718,367

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Fig. 1.

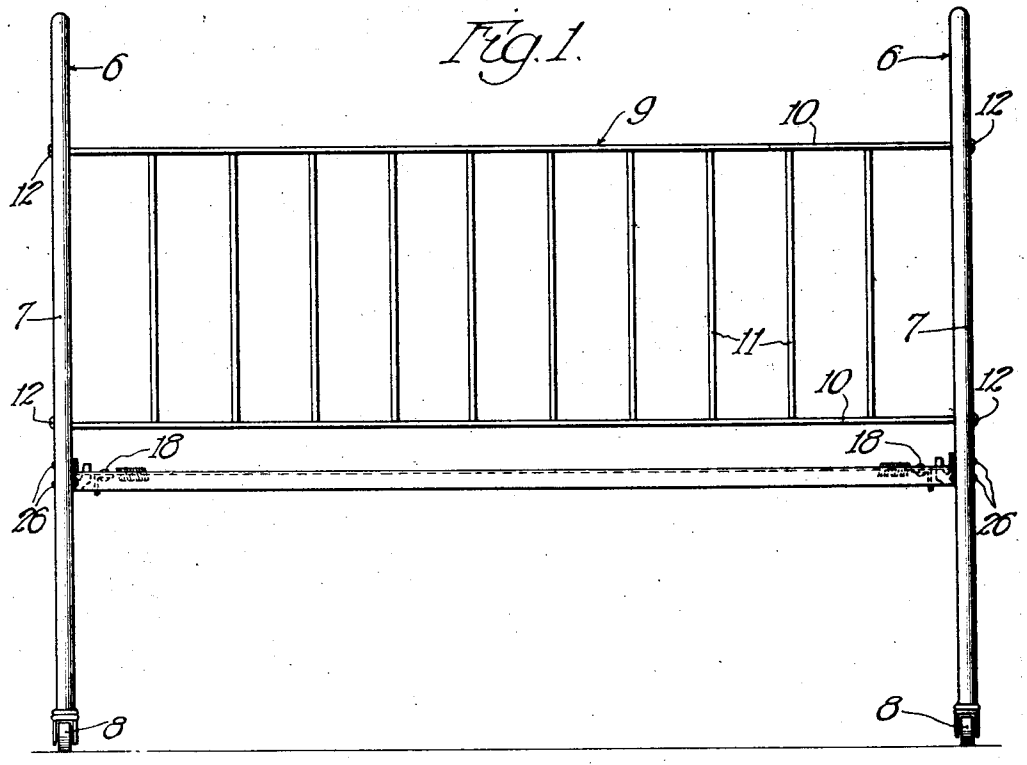
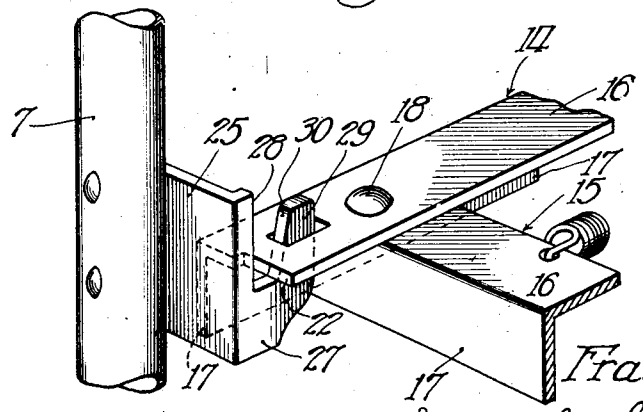


Fig. 5.



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Fig. 2.

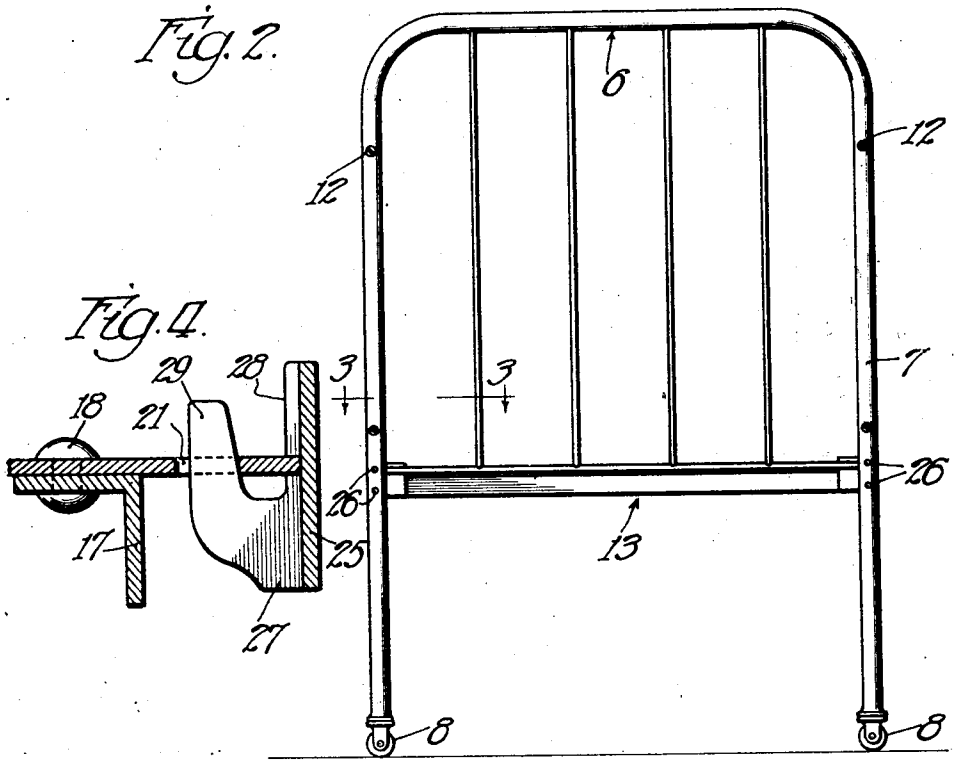
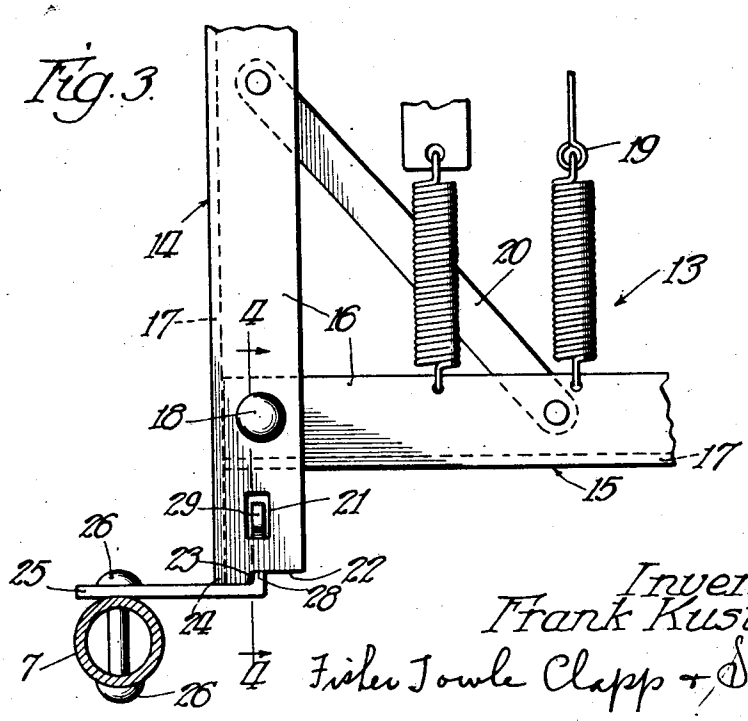


Fig. 4.

Fig. 3.



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Patented June 25, 1929. 1,718,367

UNITED STATES PATENT OFFICE.

FRANK KUSTERLE, OF KENOSHA, WISCONSIN, ASSIGNOR TO SIMMONS COMPANY, OF KENOSHA, WISCONSIN, A CORPORATION OF DELAWARE.

CRIB.

Application filed May 4, 1925. Serial No. 27,727.

My invention has reference to bed or crib construction and more particularly to a novel frame structure and means for connecting the side rails to the end frames in such a manner as to facilitate setting up or assembling and disassembling of the parts of the crib, as well as to make the same strong and rigid.

Among the other objects of the invention are to provide a crib having a more rigid frame of improved and simplified construction, and a simple and novel connection between the ends of the side rails or spring frame forming the bed or crib bottom, and the corner posts of the end or head frames, in such a manner that connection between the side rails or spring frame and the corner posts of the end frames is facilitated, spreading of the end frames above or below the spring frame from parallel relation is prevented and the end frames are maintained in vertical position.

On the drawings:

Fig. 1 is a side elevation of a crib constructed in accordance with the invention;

Fig. 2 is an end elevation;

Fig. 3 is an enlarged fragmentary sectional plan view taken on the plane of the section line 3—3 of Fig. 2;

Fig. 4 is a fragmentary vertical sectional view taken on the plane of the section lines 4—4 of Figs. 2 and 3; and

Fig. 5 is a fragmentary perspective view of the structure illustrated in Fig. 3.

Referring to the drawings, the crib includes the end or head frames 6 having corner posts 7, and may be supported on suitable casters 8 if desired. Guards 9 connect the end frames 6 at the corner posts 7 and include upper and lower horizontal rods 10 and vertical filler-rods 11 therebetween. The ends of the rods 10 are anchored to the corner posts 7 as by screws 12, and said rods form spacers between the end frames to maintain the same in fixed parallel relation. The end frames are thus maintained in vertical positions and prevented from spreading or moving inwardly at the top or bottom, thus maintaining the structure tight and rigid. While I have shown and described fixed side guards, and prefer this construction, it is to be understood that other forms of side guards such as those of the sliding type, may be employed.

The spring frame is designated at 13 and forms the bed or crib bottom. It includes side rails 14 and end rails 15, both provided with inwardly extending top flanges or webs 16 and vertically depending outer flanges 17. The opposed sides are disposed in parallel relation, and the extremities of the end rails 15 are connected to the horizontal flanges of the side rails 14 at points spaced from the ends of the latter as by means of rivets 18. It will also be noted from Fig. 3 that the ends of the end rails 15 contact with the inner faces of the vertical sides or flanges 17 of the side rails 14 and serve in connection with bracing means, to be subsequently described, to maintain the spring frame and crib bottom in rectangular form. The spring fabric or bottom is designated at 19, same preferably extending between and connecting the end rails 15. Corner braces 20 extend diagonally between the side and end rails near the corners of the spring frame and maintain the latter in rectangular form so that shifting thereof angularly into a distorted or rhomboidal shape is prevented. This facilitates the connection of the ends of the side rails at the corners of the spring frame to the end frames of the bed or crib.

The projecting ends of the side rails 14 are provided with rectangular openings or slots 21 in the horizontal flanges 16, and said flanges are also recessed at the inner portions of their ends as indicated at 22, forming shoulders 23 facing inwardly and so that the outer portions of said flanges and the vertical flanges or sides project beyond the recesses 22 as indicated at 24. Plates 25, preferably anchored to the corner posts in vertical position, as by rivets 26, project inwardly of said posts parallel to the end frames 6 and end rails 15 and at substantially right angles to the side rails 14. These plates have their inner ends bent or disposed at right angles inwardly as indicated at 27, and are slotted vertically from their oupper edges as indicated at 28, to provide hooks 29, the bills of which are preferably formed so as to extend upwardly and inwardly in a longitudinal direction with respect to the crib, thus providing beveled inner edges 30. The slots 21 are longer than the width of the hook 29, and when the crib is assembled to connect the spring frame to the end frames, the openings 21 are slipped over the hooks 29 with ease owing to the spring frame being maintained in rectangular form, thus connecting the ends of the side rails with the corner posts. In this position, the outer ends of

the openings 21 engage the beveled edges of the hooks 29 and bind thereagainst, as particularly seen in Fig. 4 of the drawings. At the same time, the inturned portions of the plates 25 at the slots 28, extend into the recesses 22 as seen in Figs. 3, 4 and 5, and the projecting portions 24 of the horizontal and vertical flanges or webs 16 and 17 respectively of the side rails 14, extend beyond the outer edges of the slots 28 or inturned angular portions of the plates and abut or bind against the inner faces of the plates, so that the rails and the spring frame are prevented from shifting laterally in a horizontal plane or vertically in angular relation. By this means, the connections are maintained tight and rigid in addition to the structure being simplified and the manufacturing and assemblage facilitated. The plates 25 are in the form of angular arms, carried by or extending in from the corner posts, and the slots 28 widen upwardly to produce the tapered bills of the hooks 29, so that the ends of the openings 21 engage the hooks with a binding action to prevent vertical displacement or angular shifting of the side rails and bed bottom or spring frame therefrom. It will here be explained that by reason of the abutting of the end of the depending flange 17 against the inner face of the bracket member 25, the lower portion of the end frame is prevented from being tilted inwardly beneath the plane of the side rails. By reason of the fact that the space in front of each bracket member 25 and above the side rail is free and unobstructed, the upper portion of the end frame may be tilted inwardly and above the plane of the side rail for convenience in assembling and disassembling the end frames and side rails. The side guards 9 rigidly connect and space the end frames and in conjunction with the abutting of the depending flanges 17 of the side rails against the inner faces of the bracket members 25 they prevent tilting of the end frames when the bed has been set up in condition for use. This construction in connection with the spacing and bracing means between the end frames, formed by the fixed guards 9 at the sides of the crib and extending between the upright corner posts thereof, prevents the end frames from moving angularly with respect to the spring frame and side rails or moving inwardly above or below the spring frame, and distributes the stresses so that the likelihood of bending or injury to the parts or connections, or displacement of the latter, is obviated. By reason of the binding action between the ends of the side rails and the plates 25, and the outer end walls of the openings 21 with the inner edges of the hook bills or hooks 19, the necessity of having a snug fit between the hooks and walls of the openings is avoided. Thus the openings 21 may be much wider and longer than the hooks to permit easy and convenient connection, as compared to the old style connections between the side rails and the corner posts as used on beds or cribs.

While I have shown and described my invention in a preferred form, I am aware that various changes and modifications may be made without departing from the principles of my invention, the scope of which is to be determined by the appended claim.

I claim as my invention:

A bed comprising end frames, simple angle-iron side-rails having horizontal flanges and vertical depending flanges, the horizontal flanges having apertures located adjacent the ends of the rails, rail-connecting brackets upon the end frames, each bracket having an upright body portion secured to an end frame and an upstanding hook portion extending at an angle to the body portion of the bracket and projecting upwardly through one of the apertures in the adjacent side rail, the ends of the vertical flanges of the side rails abutting the body portions of the brackets, solely at points below the plane of the upper surface of the horizontal flange, whereby the end frames may be tilted inwardly about the hooks as pivots, the hook portions having vertically inclined edges engaging the outer end walls of the respective apertures and holding the ends of the said vertical flanges abutted against the body portions of the brackets, and side guards connecting and spacing the end frames.

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