

Oct. 25, 1949.

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2,486,093

FOLDING CRIB

Filed Sept. 24, 1945

2 Sheets-Sheet 1

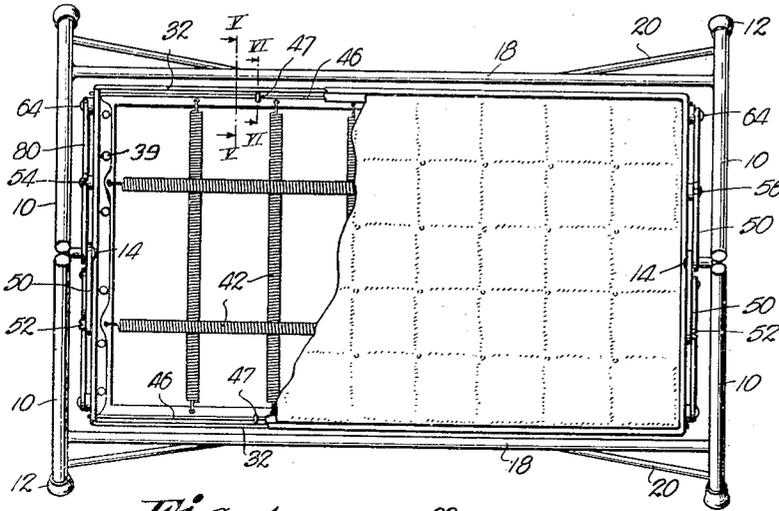


Fig. 1.

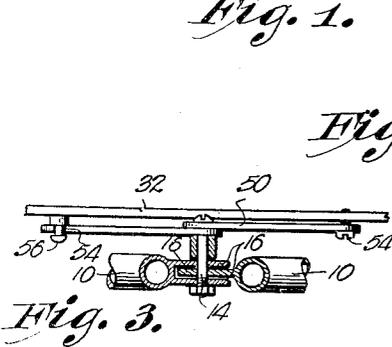


Fig. 3.

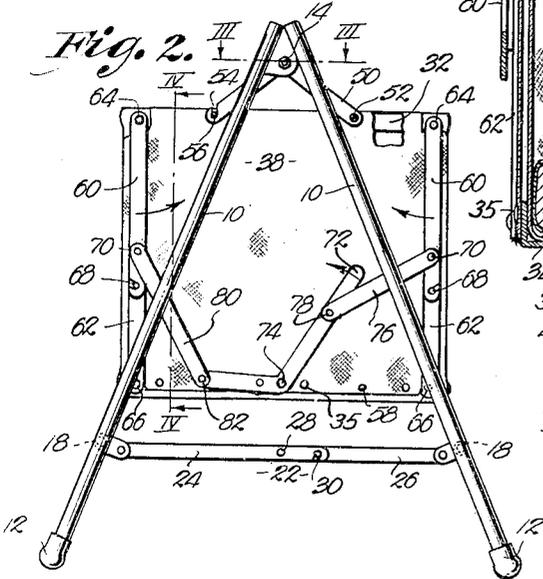


Fig. 2.

Fig. 4.

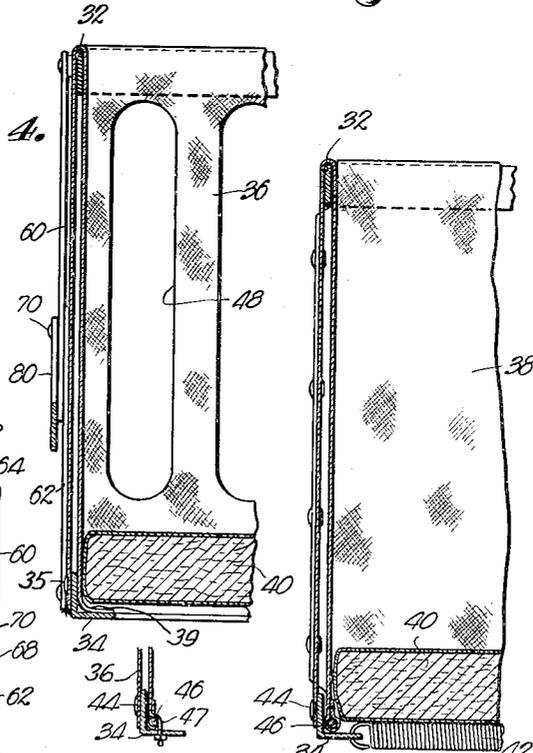


Fig. 4.

Fig. 5.

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2 Sheets-Sheet 2

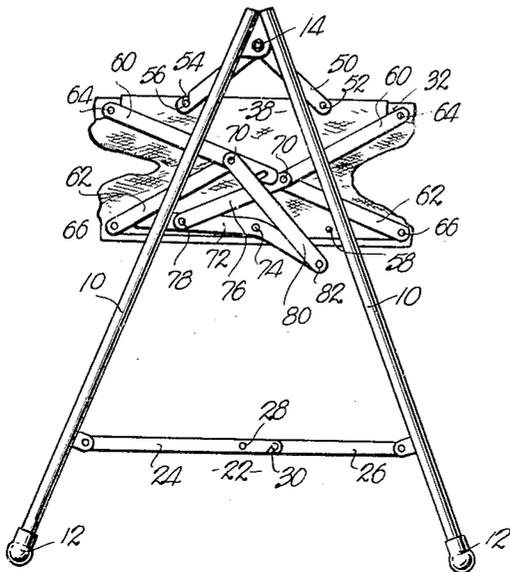


Fig. 7.

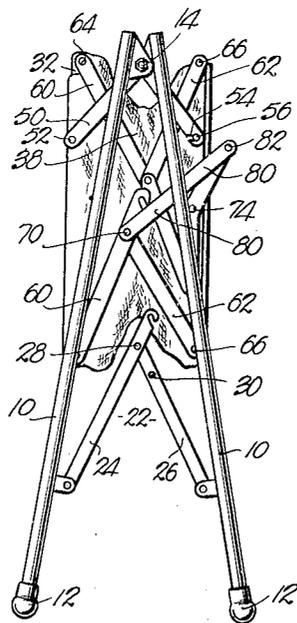


Fig. 8.

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# UNITED STATES PATENT OFFICE

2,486,093

## FOLDING CRIB

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Application September 24, 1945, Serial No. 618,110

4 Claims. (Cl. 5-99)

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The present invention pertains to foldable articles of furniture and particularly collapsible cribs for infants, the nature whereof permits manipulating the component parts of the assembly to and from an operative position with a minimum amount of work.

One of the important aims of my invention is to provide a folding crib of the character employed in cradling infants, which crib may be collapsed to a condensed condition for transportation and storage.

This invention has for a further object to provide a folding article of furniture of the aforementioned type, which comprises a series of specially formed and disposed sections, none of which are separable from the assembly when the article is shifted from the operative to the inoperative position, but which cooperate to maintain the elements of the assembly in a place where they may be again disposed to present an extended crib that is swingably carried on supporting standards and which includes a rigid frame-work capable of safely holding an occupant in a comfortable position.

Other aims of the invention include a large number of specific details of construction, the character whereof will appear during the course of the following specification, referring to the accompanying drawing wherein:

Fig. 1 is a top plan view of a folding crib made pursuant to the present invention.

Fig. 2 is an end elevational view of the crib illustrating the same in an extended and operative condition.

Fig. 3 is an enlarged fragmentary detailed sectional view taken on line III-III of Fig. 2 looking in the direction of the arrows.

Fig. 4 is a fragmentary sectional view taken on line IV-IV of Fig. 2.

Fig. 5 is a fragmentary sectional view on an enlarged scale, taken on line V-V of Fig. 1.

Fig. 6 is a similar fragmentary sectional view taken on line VI-VI of Fig. 1.

Fig. 7 is an end elevational view showing the crib in a partially collapsed condition; and

Fig. 8 is an end elevational view showing the same in a fully collapsed condition.

It is highly desirable to carry cribs for infants from place-to-place to the end that sleeping accommodations may be available. The crib chosen for illustration is capable of being collapsed to a compact bundle when not in the extended condition illustrated in the drawing, and since such collapsing may occur with convenience and speed, the arrangement of parts

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becomes unique and desirable particularly where the bundle formed is of small dimensions and easy to transport.

Not only is the bed portion of the crib capable of being folded, but the standard or frame-work upon which the bed per se is mounted may be collapsed to be a part of the bundle as the bed is attached thereto.

An understanding of the structure illustrated will readily teach the manner of producing the folding crib and in the drawing, reference numeral 10 designates a standard, a number of which are employed and arranged in pairs at the end of the crib assembly. These standards 10 should be tubular in form to insure rigidity and lightness, and the lower ends thereof are provided with feet of resilient material 12. In practice, crutch tips will be found advantageous in supplying the feet, but such may be molded if desired.

The upper ends of standards 10 are articulated as clearly illustrated in Fig. 3, and held in such condition by a bolt 14 passing through perforated lugs 16 disposed in overlapped relation to allow swinging of standards 10 to juxtaposed, parallel positions.

Standards 10 are joined by braces 18 extending longitudinally of the crib and below the hereinafter described bed portion, and these braces 18 are supplemented by additional securing elements 20, as shown in Fig. 1. Thus, when standards 10 are extended (see Fig. 2), they will remain upright and spread apart because of braces 22 comprising sections 24 and 26. These sections are pivotally secured at their outer ends to their respective standards 10, and secured together at pivotal point 28 to permit movement thereof in the direction of the arrows shown in Fig. 2. A locking pin and slot structure 30 effects a jack-knife joint, and therefore, sections 24 and 26 can move only in the direction of the aforesaid arrows when the lower portions of standards 10 are to be moved together.

The bed portion of the crib comprises an upper continuous, polygonal frame 32 and an L-shaped continuous, polygonal frame 34, each of which serves to support the fabric side walls 36 and end walls 38 in a place to confine the occupant of the bed. A pad 40 rests upon a number of springs 42, that are secured to their ends to frame 34. The fabric from which walls 36 are produced is fastened to frame 34 at the lowermost marginal edges by snap fasteners 44 of the kind having cooperating elements on the frame 34 and the fabric respectively. This fabric is then extended upwardly to loop over frame 32 and thence down-

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wardly where the opposite marginal edges thereof receive a rod 46. There is a rod 46 for each wall 36 respectively, that are held in place by eye bolts 47 secured to frame 34 along the innermost faces of the longitudinal stretches thereof.

The fabric of end walls 38 is likewise secured to the outermost face of frame 34 by snap fasteners 35, looped over frame 32 and extended downwardly for connection with frame 34 by snap fasteners 39.

Each thickness of side walls 36 is provided with vertical or transverse openings 48 to insure ventilation and such slotting may be extended around to end walls 38 if desired. In view of the positioning of the linkage about to be described, however, it is preferable to make end walls 38 solid to prevent the hands or feet of the occupant from coming into contact with the links or even with standards 10 when the bed is swung about bolt 14 when the assembly is in the operative condition with hangers 50 engaging bolt 14 to constitute the support for the bed. There is a hanger 50 at each end of the bed and at the top of each pair of standards 10. Each hanger comprises a pair of strips diverging from the axis of bolt 14. The lower or remote end of one of these strips is pivoted to upper frame 32 as at 52, while the lower end of the other strip is notched as at 54 to engage a pin 56. It is this notch 54 that receives pin 58 when the parts of the bed are collapsed.

The upper and lower frames 32 and 34 are connected by an element at each corner, each of which elements comprises a section 60 and a section 62. When these elements 60 and 62 are moved to the position shown in Fig. 2, side and end walls 36 and 38 respectively will be in a "stretched" condition between frames 32 and 34. Section 60 is uppermost and has its top end pivotally secured as at 64 to upper frame 32. The lower end of lower element 62 is pivotally secured to frame 34 as at 66. A notch and pin structure 68 at the overlapped inner ends of sections 60 and 62 cooperate with pin 70 in allowing these said sections to move inwardly in the direction of the arrows shown in Fig. 2. Such movement permits upper and lower frame 32 and 34 respectively, to approach each other in parallelism upon manually manipulating lever 72 pivotally secured to lower frame 34 as at 74, and pivoted to a link 76 at 78. This said link 76 is pivoted to sections 60 and 62 at point 70. Another link 80 cooperates with lever 72 in drawing sections 60 and 62 inwardly at their zones of connection. This said link 80 is pivotally joined as at 82 to lever 72 and is attached to one pair of sections 60 and 62 at one end of the bed by the rivet or bolt which forms pivotal point 70. Both ends of the bed are identical in character and when lever 72 at the ends of the bed is moved in the direction of the arrow shown in Fig. 2, sections 60 and 62 will move inwardly and draw upper and lower frames 32 and 34 toward each other as shown in Fig. 7. Strip of hanger 50 that is notched is disengaged from pin 56 and swung into engagement with pin 58 when the upper and lower frames are moved together. This action will preclude accidental opening of the bed by frames 32 and 34 moving from each other, and the entire collapsed bed assembly will be hung upon the frame comprising standards 10 as these standards are moved toward each other when sections 24 and 26 are "broken" about pivotal point 28 all as illustrated in Fig. 8.

The plane of upper and lower frames 32 and 34

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will be in parallelism, the standards 10 and braces 18 will be within extended planes of frames 32 and 34, and a flat, compact body will result.

It is realized that folding cribs having physical characteristics different from those illustrated and described might be made without departing from the spirit of the invention or scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A folding crib comprising a support; a bed swingably carried by the support, said support including a pair of standards at each end of the bed, each pair of standards being pivotally interconnected at the uppermost ends thereof and having a sectional brace intermediate the ends of the standards, said sections having releasable interlocking means for holding the opposite ends of the standards in spaced relation; structure pivotally secured to said connection between the standards for joining the bed to the standards, said bed including a normally upper and a lower polygonal frame member and a plurality of elements interconnecting the frames, said structure comprising a pair of links each having one end thereof pivotally secured to said upper frame, said elements each comprising a pair of sections having releasable interlocking means for holding the frames in spaced relation when the sections of each element are interlocked; a manually manipulable lever swingably mounted on said lower frame; and a link pivotally interconnecting one section of each element respectively and said lever for moving said elements to and from an interlocked position as the lever is swung, said frames being movable toward each other by said elements when the latter are shifted from the interlocked position.

2. A folding crib comprising a support; a bed swingably carried by the support, said support including a pair of standards at each end of the bed, each pair of standards being pivotally interconnected at the uppermost ends thereof and having a sectional brace intermediate the ends of the standards, said sections having releasable interlocking means for holding the opposite ends of the standards in spaced relation; and structure pivotally secured to said connection between the standards for joining the bed to the standards, said bed including a normally upper and a lower polygonal frame member and a plurality of elements interconnecting the frames, said structure comprising a pair of links each having one end thereof pivotally secured to said upper frame, said elements each comprising a pair of sections having releasable interlocking means for holding the frames in spaced relation when the sections of each element are interlocked, one of said links being releasably secured to the upper frame whereby to permit swinging of the frames into parallelism with a plane passing through the pivotal connection and midway between the lowermost ends of the standards when the frames are moved together.

3. A folding crib comprising a support; a bed swingably carried by the support, said support including a pair of standards at each end of the bed, each pair of standards being pivotally interconnected at the uppermost ends thereof and having a sectional brace intermediate the ends of the standards, said sections having releasable interlocking means for holding the opposite ends of the standards in spaced relation; and structure pivotally secured to said connection between

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the standards for joining the bed to the standards, said bed including a normally upper and a lower polygonal frame member and a plurality of elements interconnecting the frames, said structure comprising a pair of links each having one end thereof pivotally secured to said upper frame, said elements each comprising a pair of sections having releasable interlocking means for holding the frames in spaced relation when the sections of each element are interlocked, one of said links being releasably secured to the upper frame whereby to permit swinging of the frames into parallelism with a plane passing through the pivotal connection and midway between the lowermost ends of the standards when the frames are moved together, said lower frame having means to receive said one link to hold the frames together when the one link is released from the upper frame.

4. A folding crib comprising a support; a bed swingably carried by the support, said support including a pair of standards at each end of the bed, each pair of standards being pivotally interconnected at the uppermost ends thereof and having a sectional brace intermediate the ends of the standards, said sections having releasable interlocking means for holding the opposite ends of the standards in spaced relation; and structure pivotally secured to said connection between the standards for joining the bed to the standards, said bed including a normally upper and a lower polygonal frame member and a plurality of elements interconnecting the frames, said structure comprising a pair of links each having one end thereof pivotally secured to said upper

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frame, said elements each comprising a pair of sections having releasable interlocking means for holding the frames in spaced relation when the sections of each element are interlocked, one of said links being releasably secured to the upper frame whereby to permit swinging of the frames into parallelism with a plane passing through the pivotal connection and midway between the lowermost ends of the standards when the frames are moved together, said lower frame having means to receive said one link to hold the frames together when the one link is released from the upper frame, said lowermost ends of the standards being moveable toward said plane upon release of said sections joining the standards.

ALEXANDER F. AMELUNG.

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