Dec. 12, 1961 E. F. HAMILTON 3,012,254

INFANT'S CRIB

Filed Jan. 13, 1960

2 Sheets-Sheet 1

Fig. 1.

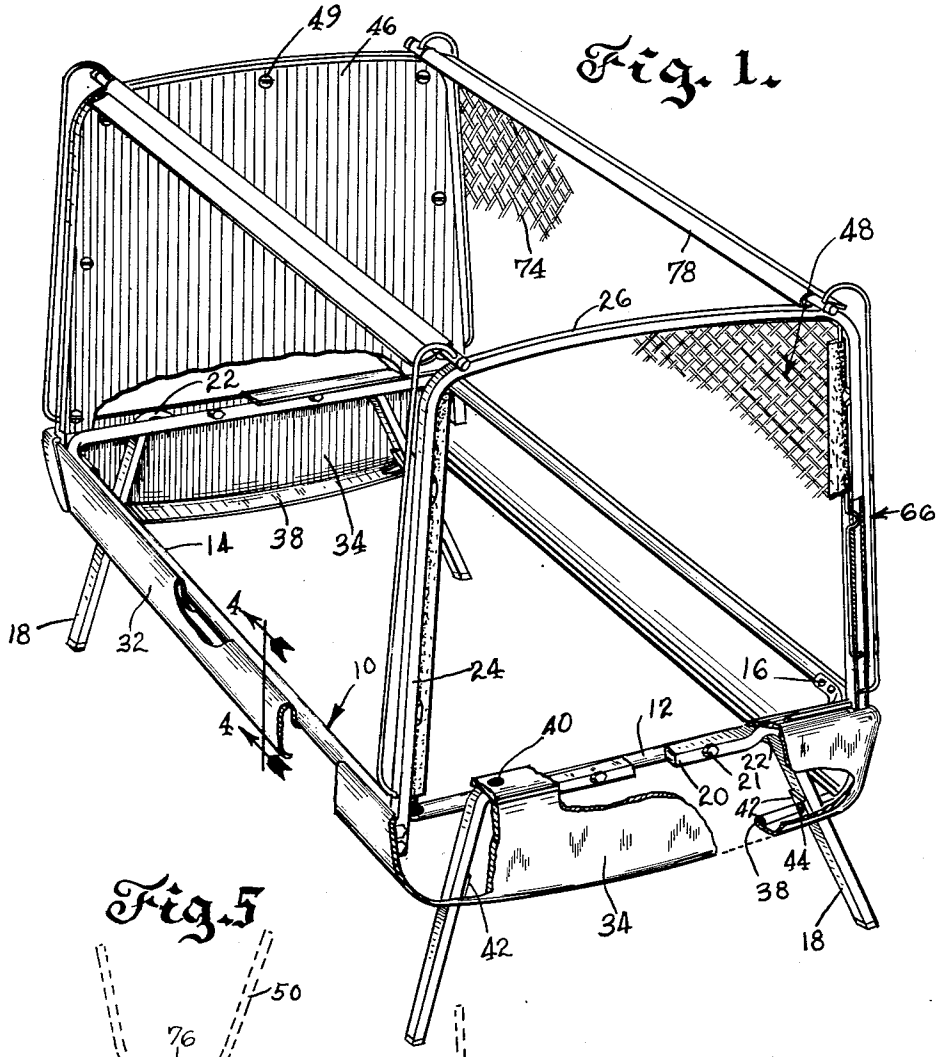
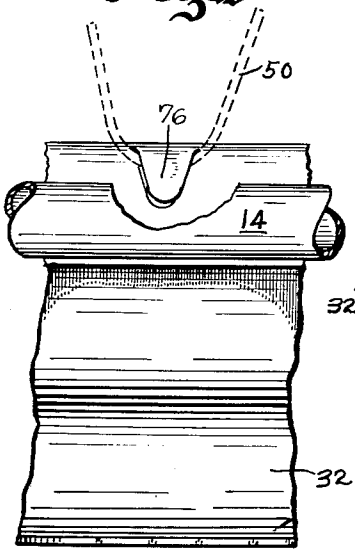


Fig. 5



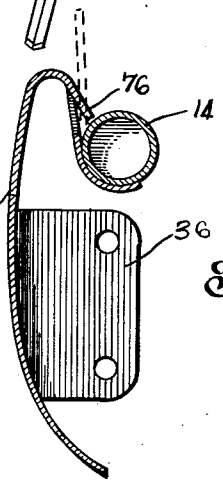


Fig. 4

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Fig. 2

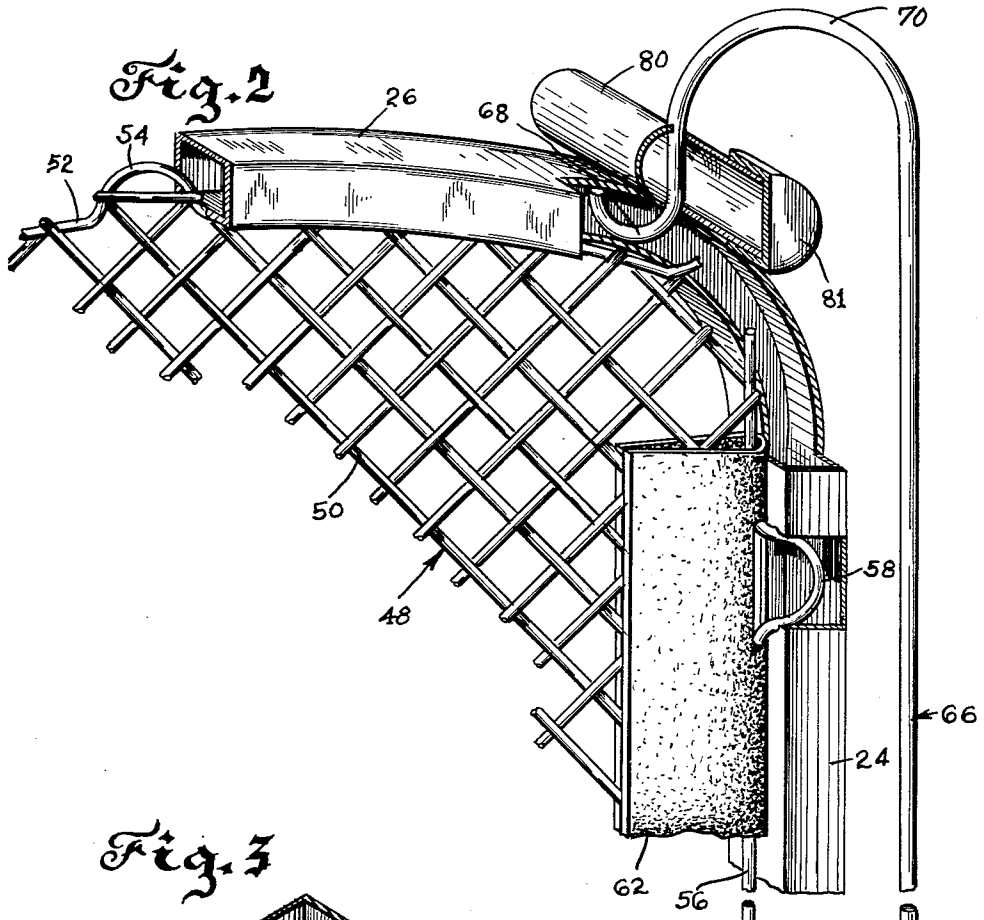
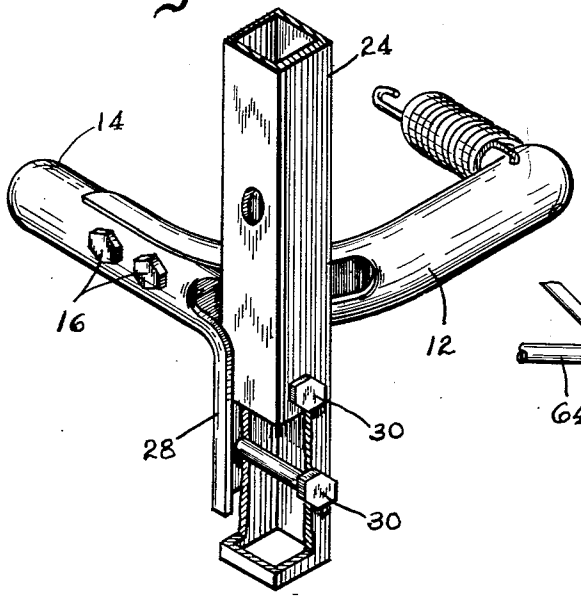


Fig. 3



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3,012,254

INFANT'S CRIB

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5 Claims. (Cl. 5—100)

This invention relates to an infant's crib, and more particularly to a crib having collapsible sidewalls.

It is an object of my invention to provide a crib of attractive appearance which can be simply and economically manufactured largely from sheet-metal and metal-tubing, which can be shipped in knocked-down condition, and which will be sturdy and rigid when erected. It is a further object of my invention to provide an infant's crib having collapsible sidewalls which can be easily moved to and from a collapsed position in which they are disposed in the general plane of a mattress supported on said crib.

In accordance with my invention, there is provided a spring-supporting frame mounted on a plurality of ground-engageable legs. Rigidly mounted on the frame at each of its ends is a pair of upright members carrying an end board extending substantially above the plane of the frame and thus closing the ends of the crib.

A plurality of guide rods are mounted on said upright members and slidably carry the ends of a pair of flexible crib sidewalls. Each of the sidewalls has a rigid member along its upper edge which is vertically slidable on a pair of the guide rods for thus moving the sidewalls between an extended position in which their upper ends are generally coplanar with the upper ends of the end boards and a collapsed position in which their upper ends are generally coplanar with the spring-supporting frame. Conveniently, means are provided for releasably retaining said flexible sidewalls in their extended position.

Other features and embodiments of my invention will become apparent from the more detailed description which follows and from the accompanying drawings, in which:

FIG. 1 is a perspective view of an infant's crib embodying my invention with portions thereof being broken away;

FIG. 2 is an enlarged fragmentary perspective view of a corner of the crib shown in FIG. 1, with portions thereof being broken away;

FIG. 3 is an enlarged fragmentary perspective view of the frame-end board mounting;

FIG. 4 is a vertical section taken on the line 4—4 of FIG. 1; and

FIG. 5 is a fragmentary side elevation of the side panel shown in FIG. 4.

As illustrated in the drawings, my crib is provided with a generally rectangular spring-supporting frame 10 conveniently formed from lengths of metal-tubing. As shown in FIG. 3, the end members 12 of the frame 10 have their ends flattened into an arcuate configuration and bent inwardly to abut the ends of the side members 14 of said frame. Conveniently, the abutting ends of the end and side members 12 and 14 are rigidly joined together as by bolts 16. Each end of the frame is supported in an elevated position on a pair of ground-engageable legs 18. Conveniently, each pair of the legs 18 is formed from a length of metal-tubing bent into a generally U-shaped configuration to thus form the legs 18 and a transverse stretch 20 interconnecting said legs. The stretch 20 is mounted on one of the frame end members, as by bolts 21, and is provided with offsets 22 adjacent its ends to provide greater rigidity and stability to its connection to the spring-supporting frame.

An end frame conveniently formed from a length of metal-tubing bent into a generally U-shaped configuration is mounted on each end of the frame. Each of said

end frames comprises a pair of upright members 24 mounted on the corners of the frame 10 and extending upwardly therefrom substantially above the plane of said frame. The upper ends of the upright members 24 are integrally joined by a transverse bight 26 disposed well above the plane of the frame 10. The lower ends of the members 24 extend below the plane of the frame 10 and are rigidly connected to the flattened downturned ends 28 of the frame side members 14, as by bolts 30.

In the embodiment of my invention illustrated in FIG. 1, the sides and ends of the frame 10 are enclosed by side and end panels 32 and 34 conveniently in the form of sheetmetal stampings. As shown in FIGS. 1 and 4, each of the side panels 32 extends the length of the frame 10 and is provided at its ends with inturned flanges 36 fastened to the inner faces of the upright members 24 by the bolts 30 joining the frame sides 14 to said uprights. The upper portions of the side panels 32 are retroverted to underlie the frame sides 14. The inherent resiliency of the sheetmetal panels 32 permits their upper ends to be stressed into fixed positions underlying the frame sides 14.

As shown in FIG. 1, each of the end panels 34 is provided with an inwardly extending peripheral flange 38 connected along its upper stretch to the offsets 22 on the interconnecting leg stretch 20 by bolts 40. The lower stretch of said flange is slit and bent upwardly to provide openings for the reception of the downwardly extending legs 18, and to form ears 42 bolted to the legs 18 as at 44. The lateral stretches of the flange 38 are received over the ends of the side panels 32 to thus provide a smooth attractive corner design.

My crib may be provided with flexible or rigid end boards, or a combination thereof. In the embodiment shown in FIG. 1, I employ a rigid end board 46 mounted on one of the end frames by bolts 49, and a flexible end board 48 mounted on the end frame at the opposite end of the crib. As shown in FIG. 2, the flexible end board 48 comprises a panel of fabric netting 50 mounted on the uprights 24 and their interconnecting bight 26 by a plurality of metal rods. To this end, a rod 52 having a plurality of spaced offsets 54 is interwoven through the upper ends of the netting strands. The offsets 54 in the rod 52 are press-fit into slots cut in the lower face of the bight 26, and the ends of said rod are stressed into openings formed in said bight at its juncture with the upright members 24. Because of its inherent resiliency, the rod 52 will be releasably retained in position in the bight 26 to hold the upper end of the netting in fixed position thereon. The lateral edges of the netting 50 are retained in the upright members 24 by metal rods 56, each of which has a plurality of offsets 58 receivable in slots cut in the inner faces of the upright members 24. The upper end of each of the rods 56 is received in an opening formed on one of the uprights 24 adjacent its upper end, and the lower end of said rod is hooked, as at 60, for reception in an opening formed in the inner face of the upright 24 adjacent its connection to the frame 10. Thus, the rods 56 are interwoven between the netting strands and are mounted on the upright members as by inserting their hooked portions 60 and offsets 58 into their mating openings formed in the uprights 24, with the upper ends of said rods being stressed into their respective openings at the upper ends of said uprights. The lower edge of the netting 50 may also be held in position on the crib by a metal rod 64 interwoven between the lower ends of the netting strands and spring-stressed into openings formed in the inner faces of the upright members 24 immediately above their connections to the frame 10. Conveniently, the edges of the netting may be strengthened by a fabric hem 62 sewn onto the

netting along any desired edge or edges and received around an adjacent mounting rod.

As best shown in FIG. 2, I mount a vertically extending guide rod **66** on each of the uprights **24**. To this end, the upper end of each guide rod has a serpentine configuration comprising a hooked portion **68** received in an opening in one of the bights **26** and an arcuate portion **70** projecting above said bight and interposed between the hooked portion **68** and the main body of the rod **66** extending generally downwardly therefrom. The lower ends of the guide rods are bent inwardly, as at **71**, and extend through openings formed in the uprights **24** for the reception of nuts **72** to thus retain the guide rods **66** in vertically extending positions set outwardly from the uprights **24**.

As shown in FIG. 1, the crib sidewalls **74** are also formed from flexible netting. To mount the netting sidewalls on the crib, a plurality of tongues **76** are struck inwardly from the upper portions of the side panels **32** and hooked into the lower strands of netting. Each of the netting sidewalls **74** has a fabric hem **78** along its upper edge which is received over a metal tube **80** extending the length of the sidewall. Conveniently, the tubes **80** have caps **81** received over their ends. The lateral edges of the sidewalls are received over and are slidable on the guide rods **66** and the opposite ends of the crib, and similarly each of the tubes **80** is provided with openings adjacent its ends for slidably mounting it on a pair of the guide rods at the opposite ends of the crib. In this manner, tubes **80** are movable from a lowered position resting on the inturned ends **71** of the rods **66** in which the sidewalls **74** are in collapsed position to an extended position in which the tubes **80** are disposed against the top faces of the bights **26**. During the upward movement of the tubes **80** on the guide rods the sidewalls will be extended, with the inherent resiliency and flexibility of the sidewalls permitting the tubes **80** to move over the arcuate guide rod portions **70** to thus releasably lock the sidewalls in their extended taut positions.

I claim as my invention:

1. In an infant's crib, a spring-supporting frame mounted on a plurality of ground-engageable legs, a pair of inverted generally U-shaped tubular end frames mounted on the opposite ends of the spring-supporting frame and extending upwardly therefrom to support a pair of end boards extending substantially above said spring-supporting frame, a pair of vertically extending guide rods mounted on the opposed sides of said end-frames, each of said guide rods having an inturned lower end received in aligned openings formed in the lower end of one of said end frames and having first and second U-shaped bends at its upper end, said first bend being presented downwardly and terminating at the vertically extending portion of its respective rod and at an opening formed in the upwardly presented face of the bight of said one of said end frames and said second bend being presented upwardly and extending inwardly through said opening to bear against a pair of opposed inner faces of said bight, a flexible sidewall along each side of the crib and having its ends slidably carried on a pair of said guide rods, and a rigid member connected to the upper end of each of said sidewalls and slidably mounted on a pair of said guide rods for moving the sidewall between an extended position in which said rigid member is received over said first bends on said guide rods to bear against the bights of said end frames and a collapsed position in which said rigid member is supported on the lower inturned ends of said guide rods, said rigid member upon full extension movement of the sidewall sliding over the first bends of the guide rods and being stressed downwardly against the end frame bights by the flexible sidewalls.

2. In an infant's crib, a generally rectangular spring-supporting frame having a pair of side members provided with downturned ends and a pair of end members rigidly secured to ground-engageable legs at the opposed ends of the crib and having inturned ends rigidly secured to said side members, a pair of end frames rigidly connected to the downturned ends of said side members at the opposed ends of the spring supporting frame and extending upwardly therefrom, an end board mounted on each of said end frames, at least one of said end boards comprising a sheet of fabric netting having a plurality of metal rods joined to the margins thereof and carried in openings formed in one of the end frames, a flexible sidewall along each side of the crib, means on the opposed sides of said end frames for mounting the sidewalls on the crib, said sidewalls being movable with respect to said means for movement between an extended taut position in which their upper ends generally are coplanar with the upper ends of the end frames and a collapsed position in which their upper ends generally are coplanar with the spring-supporting frame, and means releasably locking said sidewalls in extended taut position.

3. The invention as set forth in claim 2 in which said end frames are formed from lengths of metal-tubing and a plurality of said metal rods provided with spaced offsets which are interwoven in the margins of the sheet of fabric netting, said offsets being carried in a first set of openings formed in the inner face of one of the end frames and the ends of said metal rods being spring-stressed into a second set of openings formed in the inner face of said one end frame.

4. In an infant's bed, a generally rectangular spring-supporting frame mounted on pairs of ground-engageable legs at the opposite ends thereof, each pair of said legs being interconnected by a transversely extending member rigidly connected to one end of said frame, a pair of inverted generally U-shaped end frames mounted on the opposite ends of the spring-supporting frame and extending upwardly therefrom to support a pair of end boards extending substantially above the spring-supporting frame, a pair of sheet-metal side panels mounted on said end frames and extending along the sides of said spring-supporting frame, said side panels and supporting frame being connected to the end frame by common fastening means, a pair of sheet-metal end panels mounted on said ground-engageable legs and extending along the ends of said spring-supporting frame, said end panels overlapping the ends of the side panels, a pair of fabric netting sidewalls extending along the sides of the crib and having their lower ends connected to said side panels, a plurality of guide rods on said end frames slidably supporting the sidewalls thereon whereby said sidewalls are vertically movable between an extended position in which their upper ends are generally coplanar with the upper ends of the end frames and a collapsed position in which their upper ends are generally coplanar with the spring-supporting frame, and means for releasably locking said sidewalls in extended position.

5. The invention as set forth in claim 4 with the addition that the upper portion of each of said side panels has a retroverted bend and is stressed into position underlying said spring-supporting frame, and the lower netting strands of the sidewalls are hooked over a plurality of tongues struck outwardly from the upper portions of said side panels.

References Cited in the file of this patent

UNITED STATES PATENTS

633,353	Bacon	Sept. 19, 1899
1,016,579	Poulnot	Feb. 6, 1912
1,708,363	Everhard	Apr. 9, 1929
2,672,627	Habelfeldt	Mar. 23, 1954

FOREIGN PATENTS

595,507	Great Britain	Dec. 8, 1947