Oct. 9, 1951 L. HOFFMAN 2,570,446

FOLDING CRIB

Filed June 2, 1949 2 Sheets-Sheet 1

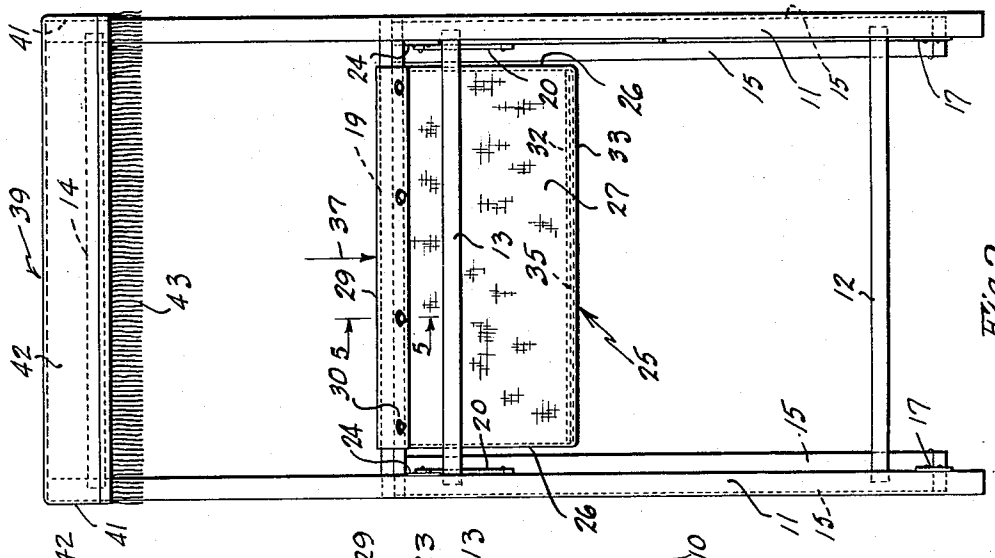


Fig. 2.

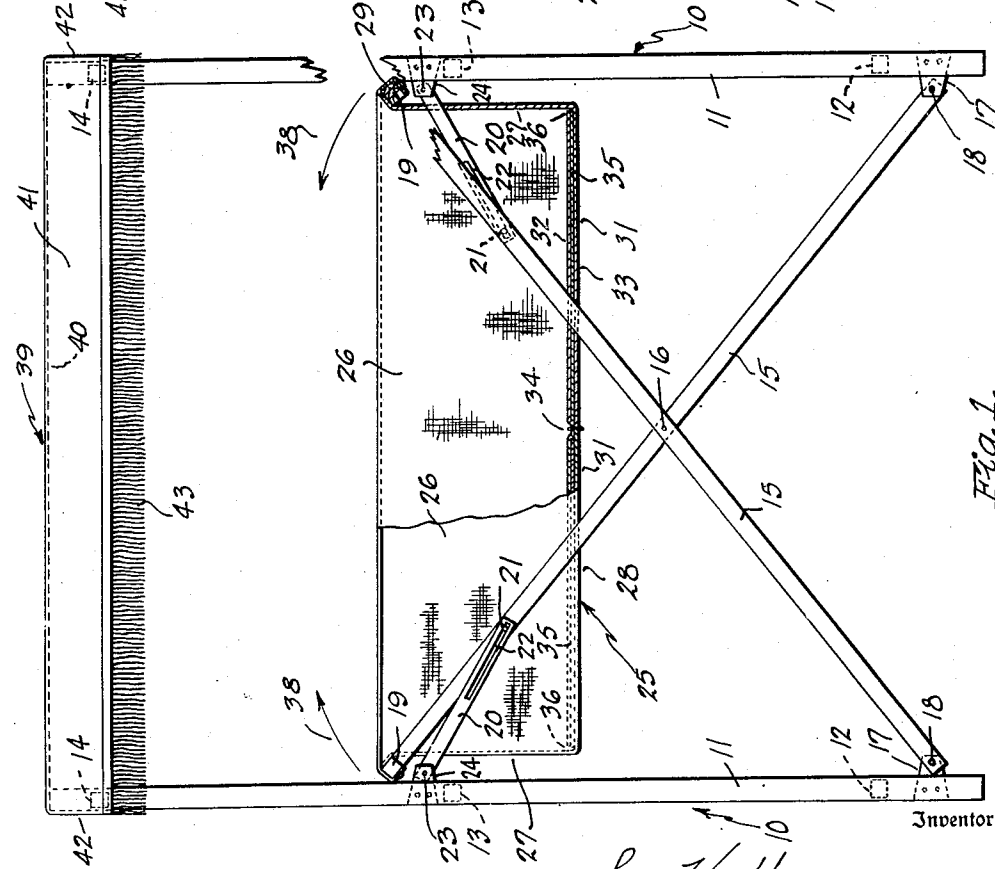


Fig. 1.

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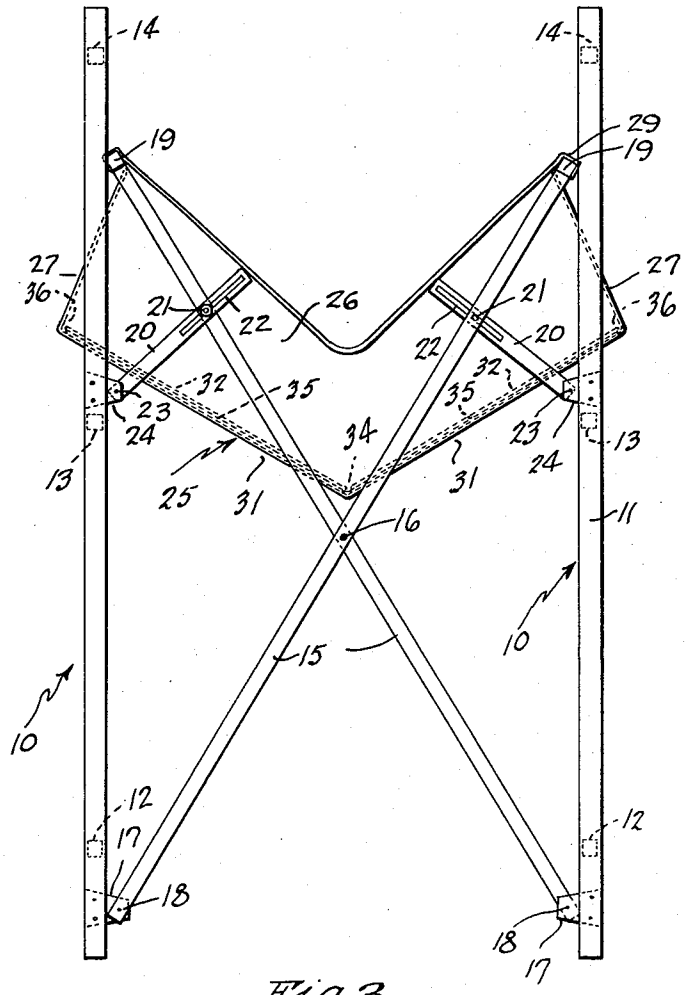



Fig. 3.

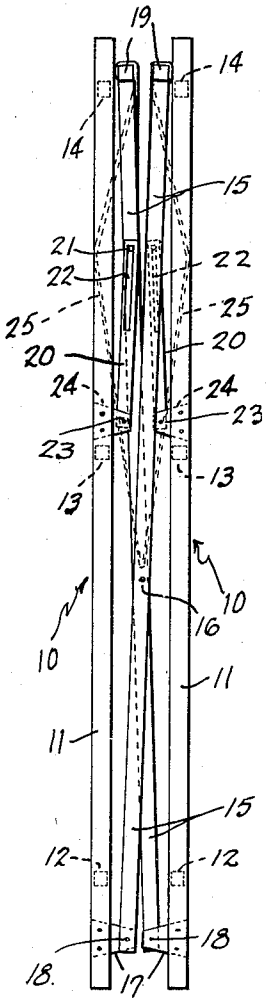



Fig. 4.

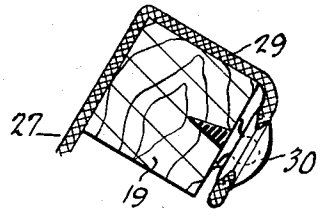



Fig. 5.

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Patented Oct. 9, 1951 2,570,446

# UNITED STATES PATENT OFFICE

2,570,446

## FOLDING CRIB

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Application June 2, 1949, Serial No. 96,693

4 Claims. (Cl. 5—98)

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This invention relates to a folding crib, and has for an object to provide a device of this character of simple and yet strong, rigid construction when in the set-up or extended position, and one which may be easily and quickly folded with a single simple operation to a collapsed condition in which it occupies a minimum of space for easy transportation or storage.

Another object is to provide a structure for such a device in which the child is effectively protected from sun or rain, and in which an overall screen or netting for protection against insects may be used.

With the foregoing and other objects in view, I have devised the construction illustrated in the accompanying drawings forming a part of this specification. It is, however, to be understood the invention is not limited to the specific details of construction and arrangement shown, but may embody various changes and modifications within the scope of the invention.

In these drawings:

Fig. 1 is a side elevation of the device extended and set up for use, parts being broken away to more clearly show the construction;

Fig. 2 is an end view thereof looking from the right of Fig. 1;

Fig. 3 is a side view showing the device partly collapsed or folded;

Fig. 4 is a similar view showing the device fully collapsed or folded, and

Fig. 5 is a detail section on an enlarged scale substantially on line 5—5 of Fig. 2.

The device comprises two end frames 10 each including two upright side members or posts 11 forming supporting legs, which are laterally spaced and connected by three cross members 12, 13 and 14, one adjacent their lower ends, one at an intermediate point and the other adjacent their upper ends. The ends of these cross members are secured to the side members by any suitable joints or connections. The two end frames are connected by two sets of side members 15, each set comprising a pair of crossed members pivotally connected together at an intermediate point 16 where they cross and each pivotally connected at its lower end to a bracket 17 as indicated at 18, each of these brackets being secured adjacent the lower end of one of the upright frame members 11 and preferably on the inner sides of these frame members. These brackets can be merely flat pieces of sheet metal of suitable thickness or gauge. At their upper ends each opposed or similar pair of side members 15 at the front and rear sides of the device are connected by a cross bar 19, and each of the crossed side members 15 is also connected by a preferably flat link 20 to the side members 11. Each link 20 is pivoted to its member 15 at 21 through a pin and slot connection, the slot being an elongated longitudinal slot 22 in the inner end of the link 20. At its outer end this link is pivotally connected at 23 to a bracket 24 similar to the bracket 17 mounted on the adjacent upright side member 11 at the proper height above the lower end of this member.

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Mounted on the cross bars 19 is a foldable crib of flexible material 25, preferably of canvas or similar material. This comprises four upright side and end walls 26 and 27 respectively and a connecting bottom wall 28. The upper ends 29 of the end walls 27 are folded over the transverse bars 19 and are preferably detachably secured thereto by any suitable means, such, for example, as the snap buttons 30. The bottom wall 28 is made with two pockets 31, as shown in Fig. 1. That is, the bottom wall is a double wall comprising the upper and lower canvas members 32 and 33 stitched transversely at the center 34 and at their opposite side edges but not at the ends 36, and then stiffening elements 35, such, for example, as plywood or the like, are inserted in these pockets through the open opposite ends 36. This flexible and foldable crib supports a blanket or small mattress for the child and keeps it from sagging in the middle, or that is, so that it retains the end and side walls in an upright position when in use, as shown in Figs. 1 and 2.

As previously stated, the normal or open position is shown in Figs. 1 and 2, and this is the normal position of use. To close the device, the operator merely grasps the two cross bars 19 from one side of the device, as either from the front or rear, and preferably in about the center, as indicated by the arrow 37, and draws the two bars 19 upwardly and inwardly toward each other, as indicated by the arrows 38 in Fig. 1. This draws the two end frames 10 together or toward each other as indicated in Figs. 3 and 4, with the connecting cross side members 15 between them, this movement being permitted by the elongated slot 22 in the links 20. The canvas or flexible crib 25 folds with it, the two stiffened portions of the bottom wall folding about the center stitched line 34, as indicated in Fig. 3.

To open again, all that is necessary is to grasp the top bars 14 adjacent the upper ends of the end frame 10 and force them outwardly in opposite directions to separate these end frames to the position of Fig. 1. When in this position

the cross bars 19 engage the inner side of the upright frame members 11 above the brackets 24 as the bars 19 are made long enough to overlap these end frame members, and they with the links 20 make a very rigid supporting structure. In fact, when the device is in the open position it is a very strong and rigid structure which will readily hold several hundred pounds of weight. The frame members are preferably of wood, but of course may be made of metal if preferred.

It will be evident from the above that the side members 11 of the end frames are extended above the foldable crib portion and at the top may support a cloth or canvas sunshade or top 39. This comprises a top wall 40 and side and end walls 41 and 42 stitched together at the corners so that the side and end walls depend at right angles to the top wall, and it can be set at its corners over the upper ends of the upright corner members 11 of the end frame, as shown in Figs. 1 and 2. This forms a sunshade or protection from showers for the child in the crib, and also may form a supporting base for an overall mosquito netting. This top may merely fit snugly over the upright ends of the corner members 11, or, if desired, rings (not shown) may be stitched on the inside adjacent the corners for tie-cords for tying the device to the corner members 11. Before collapsing the device, this canvas or cloth top or shade may be removed and placed in the canvas crib 25, so that when the device is folded this is enclosed and held in this crib. The upright irregular lines 43 on the canvas top or sunshade indicate a fringe or similar decoration.

It will be clear from the above that the device is of very simple construction, but the various elements are so arranged and connected as to form a very strong and rigid construction in proportion to the amount of material used, so that it is of light weight and will not be expensive to fabricate, yet forms a very effective and safe crib for the child, and may be very quickly and easily folded or collapsed by a single operation so as to take up a minimum of space either for transportation or storage purposes, and may be as easily expanded to the set-up or position of use with as simple an operation. The top or shade is also of very simple and effective construction which may be easily and quickly applied to the set-up device or removed therefrom and will provide effective protection to the child in the crib from the sun or a sudden shower. The canvas or crib portion may be easily and quickly detached from the frame structure for cleaning, renewal or repairs, and may be as quickly re-applied to it.

Having thus set forth the nature of my invention, I claim:

1. A foldable crib comprising a supporting frame structure comprising a pair of upright end frames, connecting side members pivotally connected to the end frames permitting said end frames to be shifted to a side by side position to collapse the frame, cross bars connecting the side members adjacent the end frames, a crib made of flexible fabric with the bottom wall comprising upper and lower thicknesses of said material stitched together at a transverse line at substantially the center of said bottom providing pockets open at the opposite ends of said bottom wall adjacent the end walls, and substantially rigid stiffener panels in said pockets extending from substantially said center to the end walls and removable through the open ends of said pockets.



2. A foldable crib including a supporting frame structure comprising a pair of upright end frames, each end frame including laterally spaced upright members forming supporting corner posts and legs, the corner members at both the front and rear of the frame being connected by a pair of crossed side members pivotally connected at an intermediate point, the lower ends of the crossed members being pivotally connected to the corner members adjacent their lower ends, links connecting the upper ends of the crossed members to the corner members, said links being each pivoted at one end to one of said members and connected to the other at the opposite end by a sliding pivotal connection, a cross bar connecting the upper ends of opposed crossed side members, a foldable crib comprising upright side and end walls, means securing the end walls of said crib to the cross bars, the corner posts of the end frames extending above the cross bars, and a protective top of fabric including a top wall and depending upright side and end walls, said protective top seated at its corners over the upper ends of said corner posts.

3. A foldable crib including a supporting frame structure comprising a pair of upright end frames, each end frame including laterally spaced upright members forming supporting corner posts and legs, the corner members at both the front and rear of the frame being connected by a pair of crossed side members pivotally connected at an intermediate point, the lower ends of the crossed members being pivotally connected to the corner members adjacent their lower ends, links connecting the upper ends of the crossed members to the corner members, said links being each pivoted at one end to one of said members and connected to the other at the opposite end by a sliding pivotal connection, a cross bar connecting the upper ends of opposed crossed side members, a foldable crib comprising upright side and end walls, means securing the end walls of said crib to the cross bars, the crib being made of flexible fabric with the bottom wall comprising upper and lower thicknesses of this material stitched together transversely at substantially the center of the bottom, and stiffening boards of substantially rigid material between said thicknesses at opposite sides of said stitching and extending to substantially the end walls.

4. A foldable crib including a supporting frame structure comprising a pair of upright end frames, each end frame including laterally spaced upright members forming supporting corner posts and legs, the corner members at both the front and rear of the frame being connected by a pair of crossed side members pivotally connected at an intermediate point, the lower ends of the crossed members being pivotally connected to the corner members adjacent their lower ends, links connecting the upper ends of the crossed members to the corner members, said links being each pivoted at one end to one of said members and connected to the other at the opposite end by a sliding pivotal connection, a cross bar connecting the upper ends of opposed crossed side members, a foldable crib comprising upright side and end walls, means securing the end walls of said crib to the cross bars, the crib being made of flexible fabric with the bottom wall comprising upper and lower thicknesses of said material secured together at a transverse line at substantially the center of said bottom providing pockets open at the opposite ends of said bottom wall adjacent the end wall, and substantially

rigid stiffner panels in said pockets extending from substantially said center to the end walls and removable through the open ends of said pockets.

LEO HOFFMAN.


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