

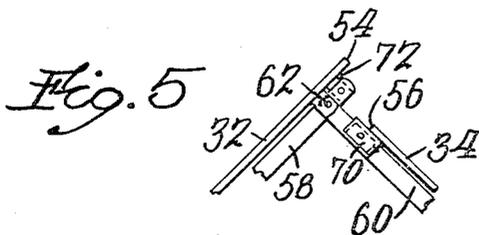
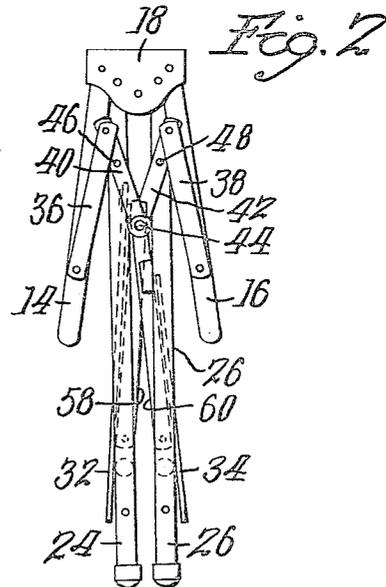
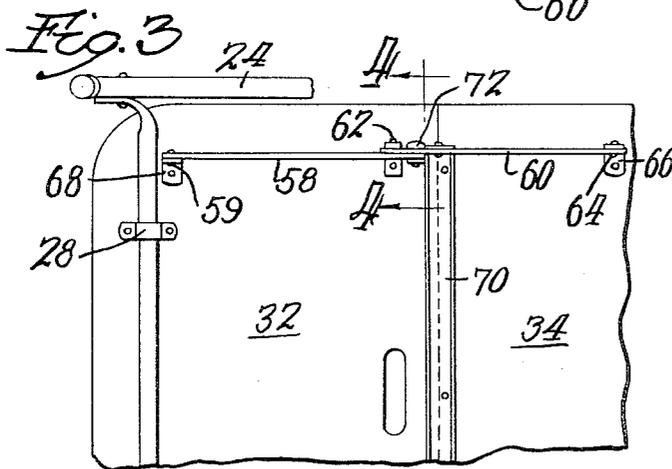
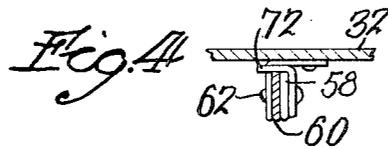
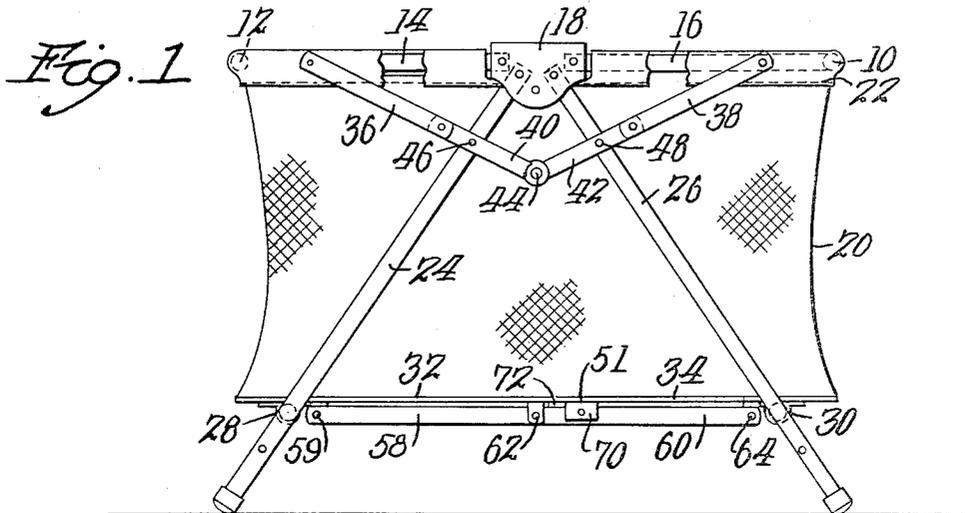
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3,309,718

FOLDING PLAYPEN

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3,309,718

FOLDING PLAYPEN

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 1 Claim. (Cl. 5—98)

This invention relates to a new and improved folding play yard which includes a construction particularly adapted to the use of flexible net side walling and a folding floor, in combination with a special improved linkage for extending the playpen to a locked, open useful position and for quickly and easily folding the same into a substantially flat condition for transportation or storage.

The principal object of the invention resides in the provision of a folding linkage as show and described in my Patent No. 3,206,773 dated Sept. 21, 1965, but with the distinction that the center supporting leg has been done away with and this invention provides a much simpler and less expensive construction for supporting the floor of the playpen, in combination with the linkage as aforesaid, so that the easiest folding and extendable play yard is provided at the least possible cost but at the same time without sacrificing any sturdiness of members or of supporting action for the infant in the playpen.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings in which:

FIG. 1 is a view in side elevation illustrating the invention in extended form;

FIG. 2 is a similar view showing the same folded;

FIG. 3 is a fragmentary bottom plan view;

FIG. 4 is a section on line 4—4 of FIG. 3, and

FIG. 5 is a fragmentary elevation of the floor members partly opened.

The playpen of the present invention includes a pair of U-shaped elements having free-ended arms which are inter-pivoted at their ends to form a generally rectangular frame or enclosure. These elements are indicated at 10 and 12 and the inwardly directed arms at 14 and 16. These arms are interconnected by being pivotally engaged with a bracket 18. This bracket construction is duplicated at the opposite side of the play yard.

A flexible net generally indicated at 20 is hung on the rectangular frame by any means desired as by a hem or the like at 22. A pair of supporting legs 24 and 26 are pivoted at their upper ends to the bracket 18. These legs have a motion between their furthest extent as in FIG. 1 to their folded position as in FIG. 2, and they also have an inter-engaged pivoting action as at 28 and 30 with respect to two floor parts 32 and 34 to support the same.

Pivotally connected with respect to each arm 14 and 16 there is a link 36 and 38 and at the ends of these links the same are inter-pivoted with respect to levers 40 and 42 at the ends thereof. Levers 40 and 42 are inter-pivoted at 44 and intermediate the ends thereof they are pivoted as at 46 and 48 with respect to the legs 24 and 26 adjacent the upper ends thereof.

In order to avoid the use of a central supporting leg, the present invention contemplates a smaller floor part 34 and a larger floor part 32 which have mating edges at 54 and 56 respectively and are mounted on underlying supporting elements 58 and 60. These supporting elements 58 and 60 are of unequal lengths and one end of the element 58 is secured as at 59 to a bracket 68 on the floor part 32 adjacent the pivot axis at 28 thereof. Element 58 is pivoted as at 62 to the element 60, the opposite end of which is secured as at 64 to a bracket 66 adjacent the

pivot axis of floor part 34. Thus the edges at 54 of each floor part 32 overlaps elements 60, see FIG. 5, when the parts are aligned with edges at 56.

The effect of this structure is that the edge portion of the floor portion 34 engages the edge of the member 32 when it comes down into the extended condition, and the floor is supported in horizontal condition and cannot be moved downwardly regardless of the weight of the infant in the playpen at this point. On the other hand no interconnections or latches are necessary and when the linkages 36, 40, etc. are broken, then the entire playpen is folded, because when the frame members 14 and 16 are moved downwardly from the FIG. 1 to the FIG. 2 position, it is necessary for the floor members 32 and 34 together with their underlying supports to move relatively upwardly into the FIG. 2 position likewise. A handhold can be utilized at the forward edge portion of the wider floor member 32 in order to initiate the folding action of the floor if this should be found desirable or convenient.

A channel-shaped member 70 may be connected to the elements 60 and to the floor member 34, extending beyond the edge 56 as shown in FIG. 5 to also support the longer floor member 32 its entire length.

An ear 72 mounted on the end of element 58 is adapted to engage the element 60 to aid in stopping members 58 and 60 in the down position.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details thereof otherwise than set forth in the claim, but what I claim is:

A folding playpen comprising a two part floor, said parts being of unequal width and being hinged together at their inner edges adjacent a central dividing line of the playpen, each part being hinged adjacent its outer edge to a part of the playpen adjacent the opposite edges thereof,

transversely supporting elements under and secured to each playpen floor part, said elements on one of said parts extending from the opposite edge portions thereof toward the corresponding elements on the other part and being pivoted together at their inner ends, the elements under the lesser floor part extending therefrom at the inner edge thereof,

the inner edges of the floor parts coming together when aligned with the playpen extended and leaving a gap when it is folded, the inner edge of the wider floor part resting on the extending portions of the elements secured to the lesser part, and the floor parts being held in horizontal extended condition thereby,

a pair of supporting leg members at each side of the playpen, a pair of U-shaped top members having free-ended arms, a pair of brackets, the arms being pivoted in pairs at their free ends to the brackets, the top members forming a rectangular open frame when coplanar, the upper ends of the leg members being pivoted in pairs to the brackets,

a generally tubular flexible net secured at one end to the frame formed by the two U-shaped top members, said net being limp and flexible when the top members are folded, said net at its other end being secured to the outer edges of the two floor parts and being stretched taut between the latter and the top members when the playpen is extended for use,

and a locking linkage inter-pivoted relative to each pair of leg members and said U-shaped top members, each locking linkage comprising a first pair of links each pivoted at one of its ends to an arm of a corresponding U-shaped top rail member intermediate the ends of such arm, a second pair of links each one of which is pivoted intermediate its ends to a respective supporting leg member intermediate the ends of the latter, each of said second links being pivoted

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to a respective first link at corresponding ends thereof, said second links being interpivoted at their opposite ends to each other between each pair of respective leg members and being otherwise freely movable and unrestricted.

each said locking linkage forming a dead center latching means for holding the U-shaped top members in extended horizontal condition when the floor parts are in extended horizontal condition, said U-shaped top members being foldable toward each other to a position at right angles to the extended condition thereof, and the leg members being simultaneously foldable

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toward each other to a condition generally parallel to said top members.

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