

Nov. 22, 1949

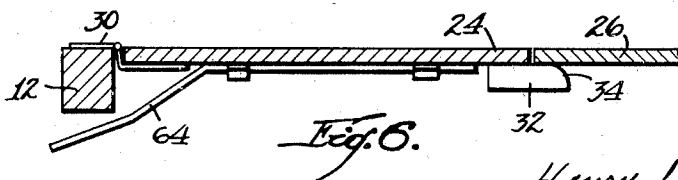
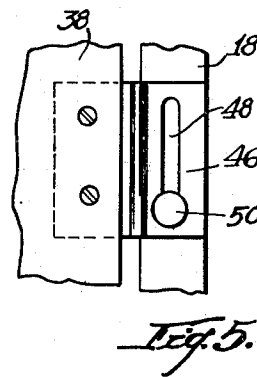
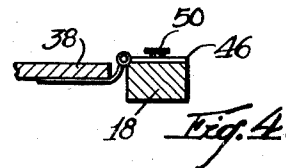
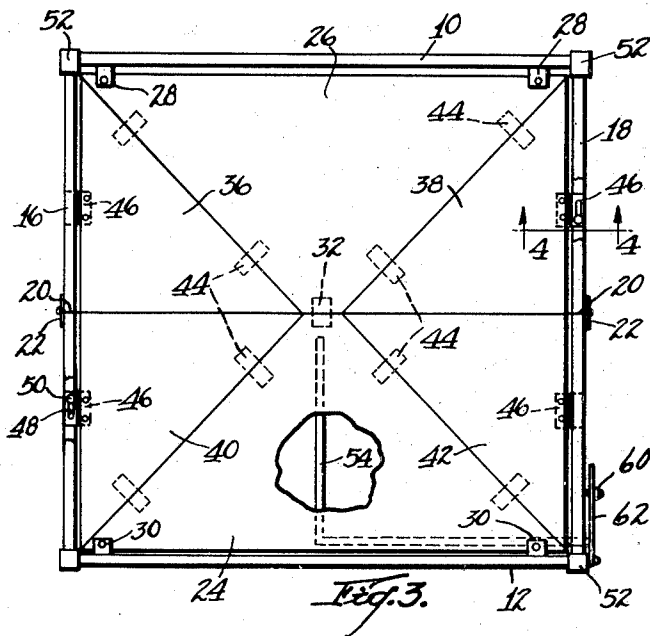
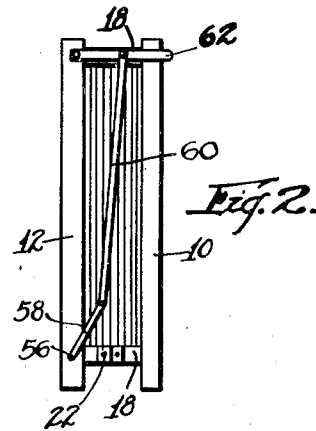
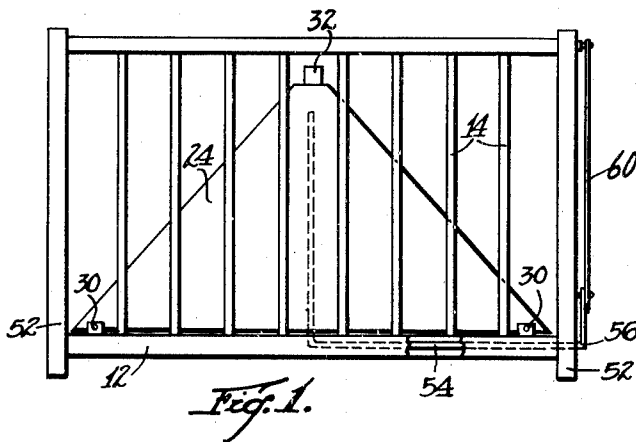
H. J. LANDRY

2,489,188

AUTOMATICALLY FOLDING PLAY YARD

Filed July 25, 1947

2 Sheets-Sheet 1



INVENTOR.

Henry J. Landry
Charles R. Fay.

BY

ATTORNEYS.

Nov. 22, 1949

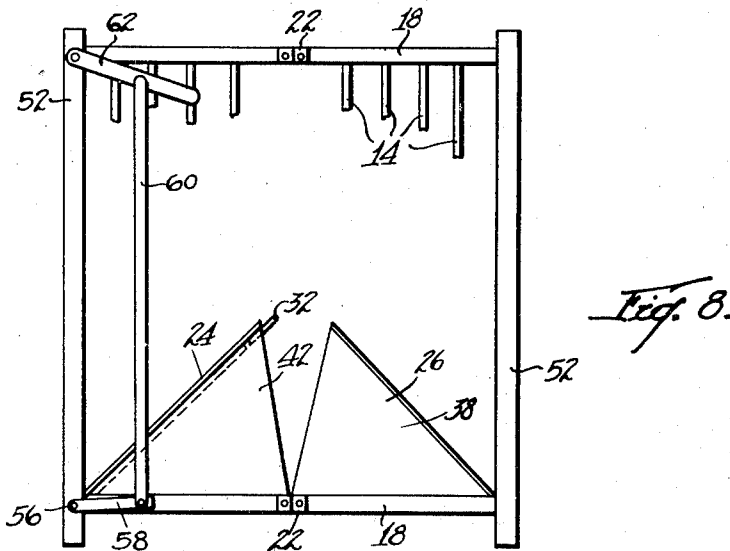
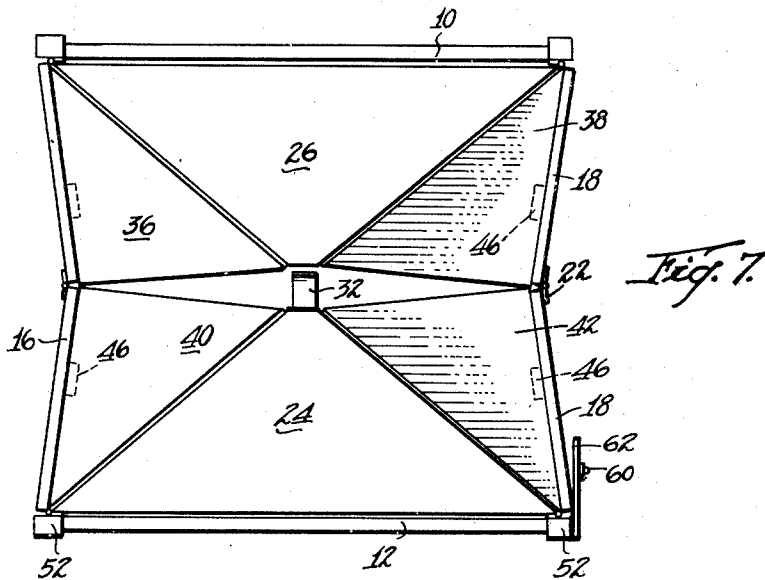
H. J. LANDRY

2,489,188

AUTOMATICALLY FOLDING PLAY YARD

Filed July 25, 1947

2 Sheets-Sheet 2



INVENTOR.

BY

Henry J. Landry
Charles R. Fay

Charles R. Fay

ATTORNEYS.

UNITED STATES PATENT OFFICE

2,489,188

AUTOMATICALLY FOLDING PLAY YARD

Henry J. Landry, Clinton, Mass.

Application July 25, 1947, Serial No. 763,620

10 Claims. (Cl. 5—99)

1

This invention relates to new and improved folding play yards and more specifically is adapted to greater ease in folding a play yard of this nature, incorporating means for automatically folding the same so that it is more easily folded and carried, and is also stronger and more durable than devices of the prior art.

The principal object of the invention resides in the provision of a folding play yard having a divided floor, each division of which is further sub-divided into a plurality of hinged parts which are in turn hinged to the sides of the play yard, whereby folding the floor simultaneously folds the sides of the play yard and vice versa, and including means to initiate said folding action as respects the floor parts.

Further objects of the invention reside in the provision of an automatically folding play yard comprising a pair of opposite rigid sides connected at their ends by a pair of folding sides, said folding sides folding at a point in line with a main division line of the floor, and the floor comprising a pair of main parts having free edges in line with the pivot points of the folding sides and each main floor part comprising interhinged parts all of which are in turn hinged to the sides of the play yard so that the entire floor thereof is firmly secured at all sides of the play yard for greater rigidity and stability than in the prior art; the provision of a special hinge providing for a sliding as well as pivotal action of certain of the floor parts relative to the folding sides; and the provision of manually operated means for initiating the folding action of the floor for greater convenience in folding the play yard.

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 of the play yard showing it folded;

Fig. 2 is a view in end elevation of Fig. 1;

Fig. 3 is a top plan view with parts broken away showing the play yard in extended condition;

Fig. 4 is an enlarged section on line 4—4 of Fig. 3;

Fig. 5 is an enlarged top plan view illustrating the hinge shown in Fig. 4;

Fig. 6 is an enlarged section illustrating a modified form of folding device;

Fig. 7 is a top plan view of the play yard showing it as it appears when the folding action has just been initiated; and

Fig. 8 is an end view with parts broken away showing the play yard as it appears when it

2

is midway between folded and extended condition.

The present play yard comprises a pair of opposite rigid sides 10 and 12 which are ordinarily made with upstanding bars 14, although these sides may be made solid or in any way desired or convenient.

The sides 10 and 12 are interconnected at their ends by a pair of folding sides 16 and 18, these sides being similar to the sides 10 and 12 except that they are separated into two sections at points 20 so that they fold inwardly as controlled by hinges 22. As so far described, the play yard is largely conventional and almost all play yards are constructed as recited above.

The present improvement includes a novel floor comprising a pair of main floor elements 24 and 26 which are pivoted by means of hinges 28 and 30, to their respective rigid sides 10 and 12. The main floor elements 24 and 26 are generally triangular in form, having their apices pointing toward each other and their broad bases adjacent and along the sides 10 and 12 substantially co-extensive in length therewith. As will be seen in Fig. 3, the apices of the triangles are cut off and it is to be noted that there is no particular connection between the main floor parts 24 and 26 except for a supporting block 32 secured to the floor part 24 and underlying the floor part 26 at the respective free edges thereof. The block 32 is curved at its free end as at 34 and as will appear hereinafter, when the floor part 24 is raised about hinges 30 this will initiate similar pivoting action as to the floor part 26; and also when the floor parts 24 and 26 pivot down toward each other the free edge of the part 26 will fall on the curved surface 34 and thus be guided into correct supported condition as illustrated in Fig. 6.

Each of the main floor elements 24 and 26 is provided with a pair of triangular wing parts respectively indicated at 36, 38, 40, and 42, each of these latter parts being hinged to the inclined edges of the main elements 24 and 26 by underlying hinges 44.

Each of the wing parts 36, 38, 40, and 42 is pivotally connected by a special hinge generally indicated at 46 to an adjacent and respectively folding section of the folding sides 16 and 18. These special hinges are each provided with a slot appearing at 48 through which extends a pin 50 secured in the folding sides and it will thus be seen that each floor wing part 36, 38, 40, and 42 is both pivotally and slidably secured to its respective folding side section.

Thus it will be seen that each of the wing parts of the floor is secured to a side of the play yard and that, therefore, all of the sides of the floor are rigidly connected so that they cannot sag below the bottom rails of the sides. The block 32 supports the entire floor in the center and it is contemplated that a caster or other support will be secured to the block 32 to hold the same with the floor elements all level and also that casters may be used on the corner posts 52 of the play yard if desired.

Also, it will be seen that if the main floor part 24 be raised about the axis of hinges 30, the wings 40 and 42 pivotally connected thereto will be raised about the hinged edges adjacent the main part 24 and in so doing the folding side sections 16 and 18 will be drawn inwardly, all as clearly illustrated in Fig. 7. At the same time, the block 32 will initiate simultaneously the same raising action as to the main floor part 26 and the same action will take place with regard to the wings 36 and 38 so that as soon as a slight upward motion is applied to floor part 24, the entire device will start to fold, see Fig. 7, whereupon it is merely necessary to continue to press inwardly on the folding sides 16 and 18 to completely fold the device into the positions shown in Figs. 1 and 2.

Conversely, in order to unfold the device it is merely necessary to separate the sides 10 and 12, whereupon the floor parts will extend downwardly and outwardly and the folding sides 16 and 18 will move outwardly to the position of Fig. 3, it being impossible to catch any of the floor parts in the rails 14 as commonly happens with play yards of the prior art, so that the entire folding and extending actions of the present play yard are extremely smooth and easily accomplished.

In order to initiate the folding action there is provided a lever 54 which may be secured in any desired manner to the under side of the main floor part 24. This lever extends at an angle under the floor to a point 56 outwardly of the play yard and at this point it has an angled end 58 which may be operated to start the floor part 24 outwardly. For extra convenience the part 58 is provided with a link 60 which in turn is provided with a handle 62 so that the folding action may be initiated and completed without stooping or bending.

As an alternative form, a foot lever 64 secured to part 24 may be used, it being necessary merely to step down on the free end of lever 64 in order to initiate the raising action of the part 24, since the latter is pivoted to the frame by hinges 30.

It will be seen that this invention provides an automatically folding play yard which is extremely smooth in operation and which, at the same time, provides for a stronger and more rigid construction due to the hinge constructions at all four sides of the floor to the sides of the play yard.

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

1. A folding play yard comprising a divided floor, each part of the divided floor being subdivided into a plurality of elements the adjacent edges of said elements being hingedly joined, a bottom rail at each side and end of the play yard, hinges on said rails, each sub-divided element

being hinged to a rail thereby, the side rails being hingedly joined to the end rails and being foldable at points intermediate their ends adjacent the main division of said floor, the elements folding about the rail hinges and drawing the foldable side rails inwardly.

2. The play yard of claim 1 including means to initiate the folding motion of the elements.

3. The play yard of claim 2 wherein said means comprises a lever secured to one element, and including a foot on said one element normally underlying one of the other divided floor parts so that the single lever will start all the parts in the folding motion thereof.

4. The play yard of claim 1 wherein the hinges between the foldable side rails and the adjacent sub-divided element are effective to provide for sliding movement of the corresponding element on the rail.

5. A folding play yard comprising a pair of opposite ends and a pair of connecting folding sides pivoted between the ends, a floor element pivoted to each opposite end, an element at each side of each floor element and hinged thereto at adjacent edges, the second named elements being hinged to the respective parts of the folding sides so that the latter and the elements are simultaneously foldable one by movement of the other.

6. The play yard of claim 5 including means providing for the second named elements to slide along the folding sides.

7. The play yard of claim 6 wherein the elements are generally triangular in shape and constructed and connected to effect a pair of articulated rectangles.

8. A folding play yard comprising a pair of opposite ends, a pair of folding sides pivoted to and connecting the opposite ends, and a pair of separate folding floor elements, each of the floor elements comprising a main part pivotally connected to an opposite end and a pair of wing parts pivotally connected along an adjacent edge to its main part and along another edge to a section of the folding sides, whereby the floor as a whole is supported by the four sides of the play yard and the folding sides are folded by folding motion of the floor elements and vice versa.

9. The play yard of claim 8 including a hinge between each floor wing part and the corresponding section of the folding sides and means effective to provide a sliding motion of each hinge in a direction along the sides.

10. The play yard of claim 9 including a block secured to the free edge of one main floor element part and underlying the other main floor element part at the free edge of the latter to support the same and initiate folding thereof, and means to initiate folding motion of the main floor element part to which the block is connected.

HENRY J. LANDRY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
545,243	Miller	Aug. 27, 1895
1,202,253	Vitt	Oct. 24, 1916
2,224,310	Merrett	Dec. 10, 1940