

March 4, 1958

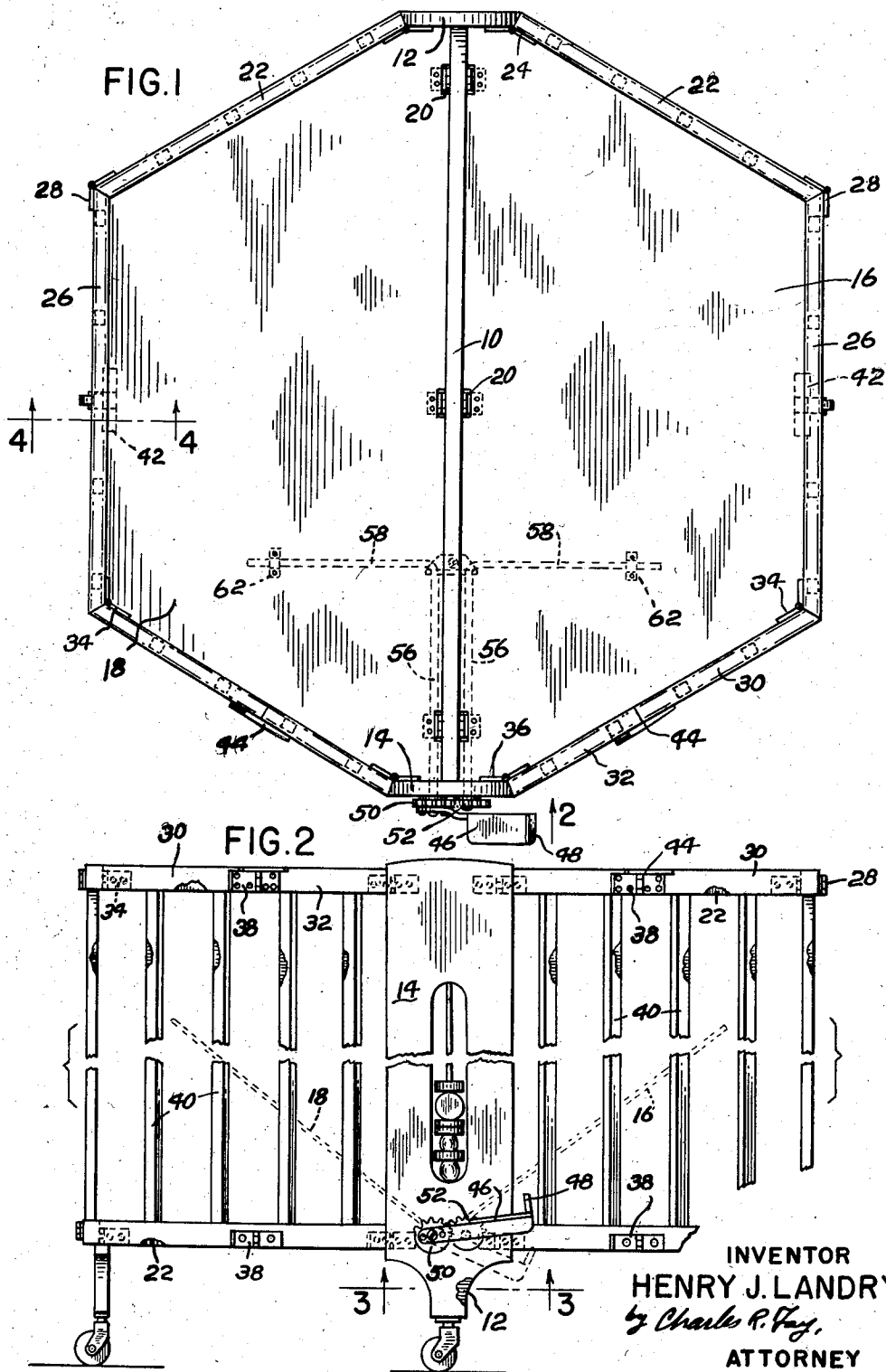
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2,825,072

MULTI-SIDED FOLDING PLAY-YARD

Filed Nov. 26, 1954

2 Sheets-Sheet 1



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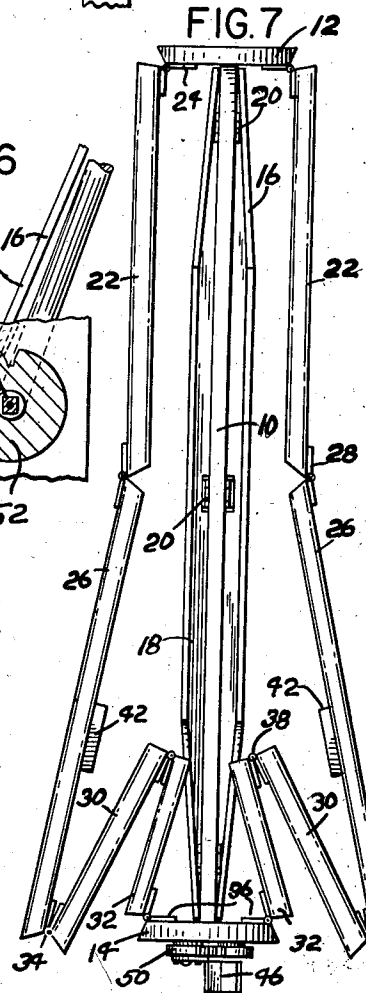
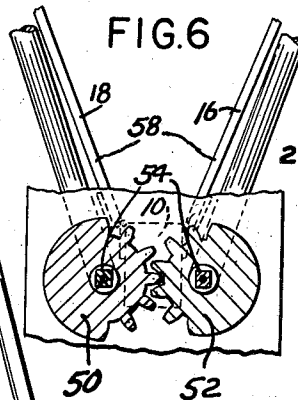
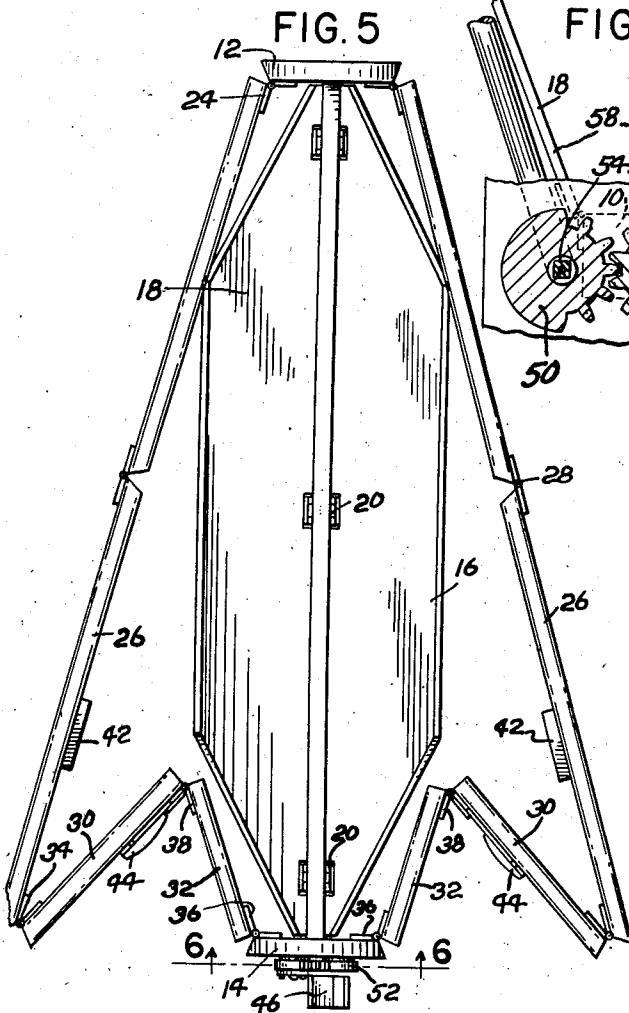
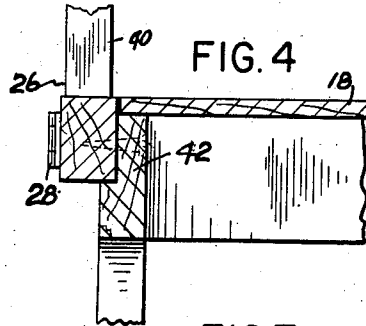
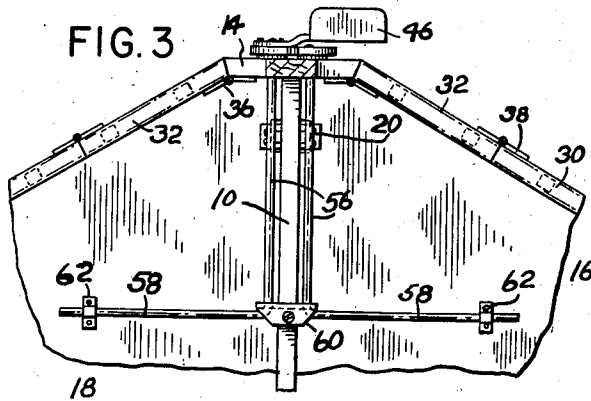
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MULTI-SIDED FOLDING PLAY-YARD

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2 Sheets-Sheet 2



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MULTI-SIDED FOLDING PLAY-YARD

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10 Claims. (Cl. 5—99)

This invention relates to a multi-sided folding play-yard, and in the particular instance illustrated in this case, the play-yard is provided with six sides as distinct from the conventional four-sided, square play-yard.

The principal object of the present invention resides in the provision of a multi-sided play-yard, and especially a six-sided play-yard which is provided with means for automatically folding the same; the provision of a multi-sided play-yard comprising a pair of end elements or uprights rigidly connected and spaced by means of a floor supporting frame member which runs directly diagonally across the play-yard and forms a rigidifying, strengthening frame therefor, in combination with a pair of parallel folding floor elements each of which has a long side hinged to the floor support member and being in the form of a rhomboid having a parallel smaller side which is a free edge, together with means for raising both floor parts simultaneously by means of a pedal, lever or the like, said floor elements normally holding the sides of the play-yard extended and when folded, providing for quick and easy folding of the side walls by the operator with an extremely small amount of effort required for this purpose.

Further objects of the invention include the provision of a six-sided or similar play-yard in which the side walls are divided into two main parts, each of said main parts including four articulated wall sections, two of said wall sections being adjacent to each other and of equal length, and the other two being hinged to one only of the first-named wall sections and being foldable into a small area or extended to have a length substantially equal to each one of the other wall sections; the provision of a play-yard as described having an upright on which is mounted means such as a lever or pedal for folding the floor parts, the short wall sections being adjacent said upright and being provided with manually-operated catches for holding the same in extended condition, whereby in order to fold the play-yard it is merely necessary to depress the lever or pedal, thus raising the floor parts, to release the catches which are closely adjacent the operator, and to swing in the two smaller articulated wall sections, so that the two longer wall sections are thereby swung inwardly to lie adjacent and generally parallel to the folding floor.

A still further object of the invention resides in the provision of a multi-sided play-yard as described above in which the construction is such as to provide for folding the play-yard into substantially the normal folded area of a conventional four-sided play-yard, the two longer articulated side wall sections being substantially equal in length to the play-yard when folded and to the central floor-supporting frame member therefor.

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 plan view showing the play-yard extended;

Fig. 2 is a view in end elevation, looking in the direction of arrow 2 in Fig. 1, parts being broken away and

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parts being shown in dotted lines to illustrate the folding action;

Fig. 3 is a section on line 3—3 of Fig. 2;

Fig. 4 is an enlarged section on line 4—4 of Fig. 1;

Fig. 5 is a plan view illustrating the operation of the play-yard and showing the same in some folded condition;

Fig. 6 is an enlarged section on line 6—6 of Fig. 5; and

Fig. 7 is a plan view illustrating the play-yard in almost fully folded condition.

The present play-yard as clearly seen in Fig. 1, is provided with six sides, but the invention is not limited to this number. The main supporting frame for the device comprises a central horizontal diametrical rigid floor-supporting frame member 10 to which is connected at each end thereof at right angles thereto the uprights 12 and 14. At each side edge of the central floor-supporting member 10, there is a folding floor member or part 16, 18, these floor members being substantially alike but reversed and each having a longer edge adjacent the support 10, a shorter parallel edge which may be referred to as a "free" edge, and inclined side edges as clearly shown in Fig. 1. These floor parts are hinged as by hinges 20 to the central member 10 and may assume the horizontal, operative position as in Fig. 1 or substantially vertical folded position as in Fig. 7.

Each side wall of the device comprises a section 22 which is hinged by an interiorly disposed hinge 24 to the upright 12; a central wall section 26 hinged by an exterior hinge 28 to wall section 22, and a third wall section which is itself articulated into two smaller parts 30 and 32, the part 30 being hinged by an interior hinge 34 to wall section 26 and part 32 being hinged by an interior hinge 36 to the upright 14. Wall section parts 30 and 32 are hinged together as at 38 (see Fig. 2), and it will be seen that each wall section may generally comprise an upper rail, a lower rail, and inter-connecting rigid uprights or stiles 40. The various wall sections and particularly those at 26 may be provided with cleats 42 to underlie and support the floor in extended condition of the latter. The side wall is of course duplicated at the opposite sides of the uprights and reference numerals have been duplicated to show corresponding parts thereof. Hinges 38 are capable of being held rigidly in the extended condition of Figs. 1 and 2 by means of conventional play-card latches 44 which are easily opened as shown in Fig. 5 in order to allow these walls to fold. The particular construction of these latches forms no parts of the present invention except for the purpose indicated.

At the outer face of the upright 14, there is provided a foot pedal or lever 46 which may have an end flange 48 thereon. This lever is rigidly secured to a segmented gear 50 which is in mesh with a like gear 52. Each of these gears is provided with a central square portion as indicated at 54, which square portions receive parts of the two rods 56 which extend in parallel relation under the respective floor members 16 and 18 and terminate in elongated angled ends 58. These ends are held by any desired means as an apertured bracket 60 for rotational support therein, the bracket 60 being mounted on the under side of the center support 10. At a remote position, there are slide guides 62 to support the outer ends of these rods, as clearly shown in Fig. 3.

Assuming the parts to be disposed as shown in Fig. 1, with the play-pen in extended operative condition, and it being desired to fold the same, the operator merely depresses the lever or pedal 46 which action swings rods 56 and brings the angled ends 58 thereof upwardly, the ends of the rods 58 sliding in the guides 62. The latches 44 may be simultaneously opened by the operator, using both hands, one for each latch, since pedal 46 may be

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operated by the foot, and then a slight push inwardly at the joint between the sections 30 and 32 results in the side walls being swung inwardly past a more or less central position (see Fig. 5) to a substantially closed position. This action completes the folding of the floor members if they have not already been completely closed by the action of the pedal.

When it is desired to extend the play-yard from folded to operative condition, it is merely necessary to grasp the side wall sections 30, 32 and swing them outwardly past the Fig. 5 position to the Fig. 1 position, whereupon the floor members will automatically pivot downwardly or descend to the operative position of Figs. 1 and 2.

It will be seen, that the present play-yard provides a construction which is extremely easy and quick to operate. The operator does not have to move from his position in front of the upright 14 and may fold and extend the entire device from this position without even the necessity of leaning over, because he does not have to stretch out but very little with either hand to reach the latches 44.

The folded area taken up by the present play-yard is no greater than that of an ordinary four-sided play-yard and it is to be particularly noted that the wall sections 22 and 26 together are substantially equal to the length of the center support 10, and the side wall sections 30 and 32 being themselves articulated, swing inwardly and neither causes an extremely long folded play-yard, or the usual extreme thickness of a six-sided play-yard when folded.

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 pair of multi-part permanently articulated side walls, a central floor level member connecting the ends of the side walls and extending across the play-yard when extended, a pair of floor parts each hinged with relation to the floor level member and having a free edge shaped to the shape of the side walls when extended, one part only of each side wall being divided and hinged generally centrally of its length, the divided portions of the said one part each being less in length than the lengths of any other side wall parts.

2. A folding play-yard comprising a pair of multi-part permanently articulated side walls, a central floor level member connecting the ends of the side walls and extending across the play-yard when extended, a pair of floor parts each hinged with relation to the floor level member and having a free edge shaped to the shape of the side walls when extended, one part only of each side wall being divided and hinged generally centrally of its length and the remaining parts of each side wall together generally equalling the floor level member in length.

3. A folding play-yard comprising a pair of multi-part permanently articulated side walls, a central floor level member connecting the ends of the side walls and extending across the play-yard when extended, a pair of floor parts each hinged with relation to the floor level member and having a free edge shaped to the shape of the side walls when extended, one part of each side wall being divided and hinged generally centrally of its length and the remaining parts of each side wall together generally equalling the floor level member in length and being swingable into general parallelism therewith with the hinged sections of the divided wall part folded flatly thereto.

4. A folding play-yard comprising a pair of multi-part permanently articulated side walls, a central floor level member connecting the ends of the side walls and extending across the play-yard when extended, a pair of floor parts each hinged with relation to the floor level

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member and having a free edge shaped to the shape of the side walls when extended, one part of each side wall being divided and hinged generally centrally of its length and the remaining parts of each side wall generally equalling the floor level member in length and being swingable into general parallelism therewith with the hinged sections of the divided wall part folded flatly thereto between the said remaining wall parts and the corresponding raised floor.

5. A folding play-yard comprising a pair of multi-part articulated side walls, a central floor level member connecting the ends of the side walls and extending across the play-yard when extended, a pair of floor parts each hinged with relation to the floor level member and having a free edge shaped to the shape of the side walls when extended and means to raise the floor parts, said means comprising a rod parallel to the floor level member at each side thereof under each respective floor part, a lateral projection on each rod to act as a floor part raising arm, and means at an end of the floor level member to rotate the rods simultaneously, said last-named means comprising a pair of interengaging elements and a manual lever to operate the same.

6. A folding play-yard comprising a pair of uprights, a rigid member at floor level connecting the uprights in rigid relation thereto, a pair of multi-sectioned, articulated side walls connecting the uprights and selectively folding into general parallelism with the floor level member or extending to form an enclosure, and floor members hinged to the floor level connecting member and selectively folding to parallel condition with the side walls in folded condition or being extended to horizontal condition and holding the side walls extended, one section only of each side wall being centrally divided and forming a pair of sub-sections foldable between the respective raised floor member and one of the other sections of the same articulated multi-sectioned side wall.

7. The play-yard of claim 6 wherein the other, undivided, articulated sections of each side wall generally equal the rigid floor level member in length.

8. A multi-side folding play-yard comprising a pair of spaced uprights, a floor support member connecting the uprights, folding sides connecting the uprights, floor members secured to the floor support in hinged relation thereto, means to raise the floor members from horizontal position, and means to actuate the floor member raising means, said actuating means being located on an upright for manual operation, the floor raising and actuating means comprising a rod under each floor member, a gear on each rod, said gears intermeshing for simultaneous operation, and an arm to rotate the gears.

9. A folding play-yard comprising a pair of uprights, a floor support connecting the same, floor members on the support, a pair of multi-sectioned folding articulated side walls connecting the uprights, each wall including a pair of adjacent wall sections adjacent an upright each of which wall sections is shorter than the other wall sections, each said pair being foldable inwardly under the respective adjacent wall section, the longer sections of each wall in toto substantially equalling the length of the floor support.

10. A six-sided folding play-yard comprising a central floor level support, an upright at each end thereof, two multi-part folding articulated side walls connecting the uprights, each side wall in toto being longer than the floor level support, only one part of each side wall being divided and hinged generally centrally of its length forming two sections folding inwardly to lie between one other wall part and the floor level support, a floor for the play-yard, the inwardly folding wall sections being substantially equal in length and when unfolded together substantially equalling the length of another single wall part, and means to raise the floor.

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