

# United States Patent

## Williams

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### [54] PLAY DEVICES

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5/93, 256/25, 248/370  
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D5/5; 5/93, 2; 256/25, 26

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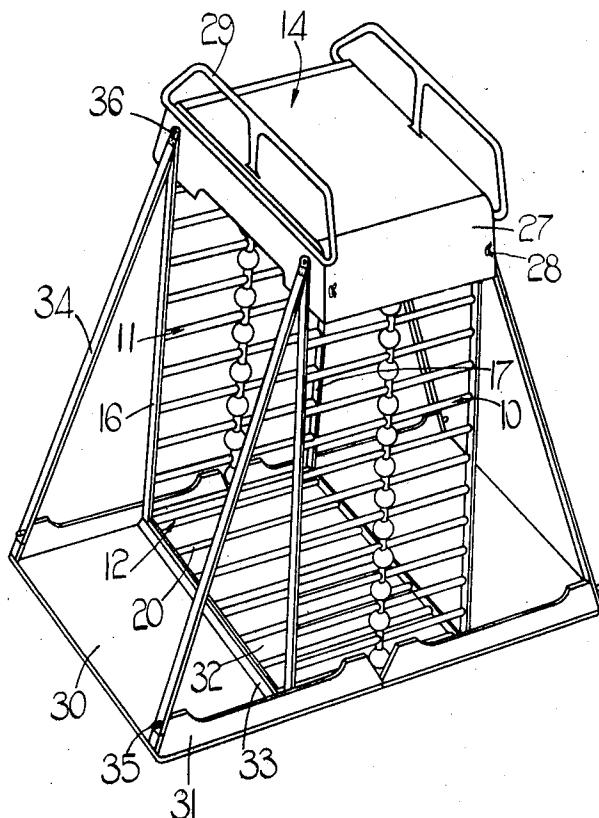
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### [57] ABSTRACT

A childrens' play device comprising side frame and end members, one of which is detachable. One alternative end member makes the structure suitable for use as a collapsible playpen or base for a table or trampoline and the other alternative end member makes the structure suitable as a climbing frame or a support for a swing, slide, seesaw, or other similar apparatus, such second alternative end member being rigidly connected to the side frame and being arranged in use at the top of the structure.

8 Claims, 3 Drawing Figures



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SHEET 1 OF 2

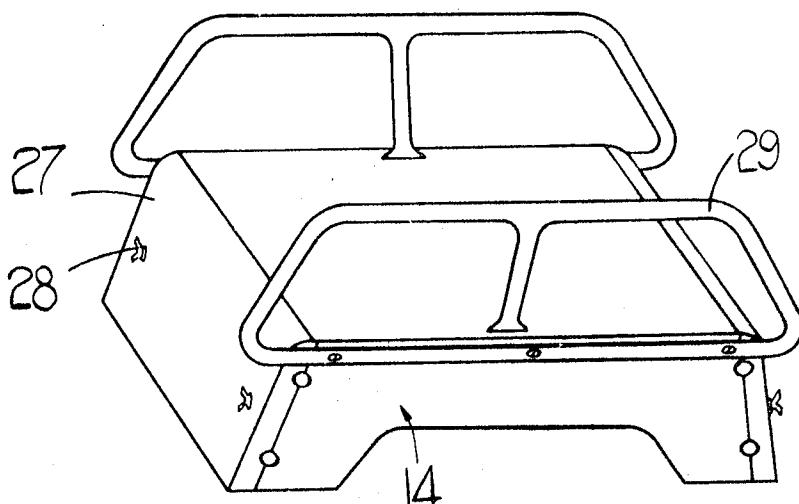
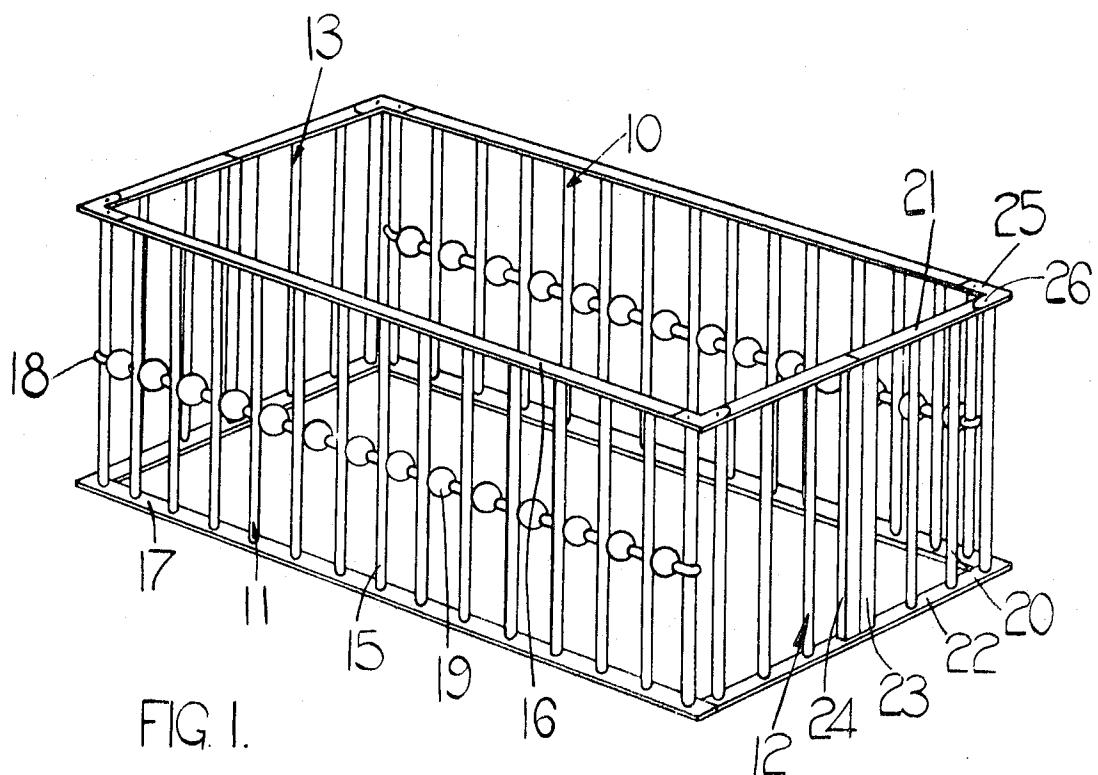


FIG. 3.

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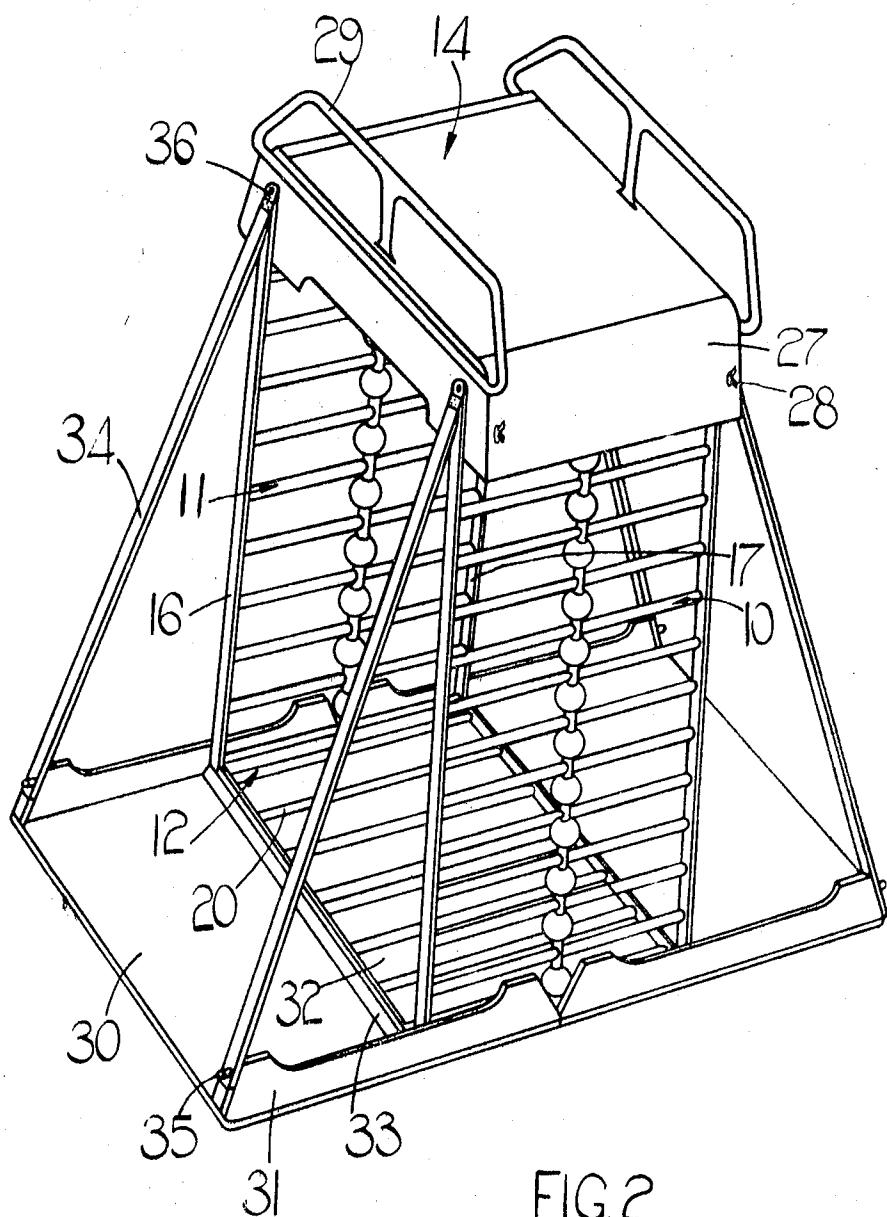


FIG 2

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## PLAY DEVICES

This invention relates to childrens' play devices of the kind comprising a structure which can be used in a number of activities.

The object of the invention is to provide such a device in a particularly convenient and effective form.

In accordance with the present invention, a childrens play device comprises a structure having two side frames, an end member hingedly connected to the side frames at one end of the structure, and one of two alternative interchangeable end members at the other end of the structure, one of said alternative end members being hingedly connectable to the side frames to form a collapsible playpen, or a base for a table or trampolene, or similar apparatus wherein the side frames and end members are on edge, and the other of the alternative end members being rigidly securable at the ends of the side frames to form a climbing frame, or a support for a swing, slide, seesaw, or similar apparatus, wherein the rigid end member is uppermost.

The invention will now be described by way of example with reference to the accompanying drawings in which:

FIG. 1 is a perspective view of the play device constructed in accordance with this invention for use as a playpen,

FIG. 2 illustrates the device arranged for use as a climbing frame, and

FIG. 3 is an enlarged perspective view of the end member of the device in FIG. 2.

As shown in FIGS. 1 and 2 the basic parts of the device are two side frames 10 and 11, connected to a two part end frame 12 at one end. At the other end, either a similar end frame 13 or alternatively a rigid end member 14 may be used.

The side members 10, 11 have a number of spaced dowels 15 extending between upper and lower rails 16, 17 of rectangular cross section. Midway between the upper and lower rails 16, 17 on each side frame is a further rail 18 carrying rotatable plastics balls 19, one between each pair of adjacent dowels 15. These balls 19 prevent a child from climbing up the side frames.

The end frames 12 and 13 are identical and each comprises a pair of frames made up of dowels 20 and upper and lower rails 21, 22. The two frames of each end frame 12, 13 are connected by a hinge 23 on the outwardly facing surfaces of two rectangular wooden members 24 on the frames respectively. To connect the end frames 12, 13 to the side frames 10, 11, the side frames carry metal plates 25 for reception of connecting pivot pins 26 coinciding with the axes of the first dowel 20 on the adjacent end of the end frame 12 or 13.

As shown in the FIG. 1 construction, the end frame 13 is used and the device is thus suitable for use as a playpen, or alternatively as a base for a table or trampolene, or other device. In this mode the device is arranged with the side frames 10, 11 and end frames 12, 13 arranged in a rectangle and these parts are disposed on edge. The end frames 12, 13 being hingedly collapsible can be folded to allow the device to be folded for storage. At least the pivot pins 26 connecting the end frame 13 are removable.

Latch mechanisms (not illustrated) are used to prevent inadvertent folding of the end frames 12 and 13, and further latch mechanisms may be used to maintain the rectangular configuration of the structure.

In an alternative arrangement the end frames 12 and 13 are one piece frames and folding of the device takes place by moving the side members 10 and 11 in opposite lengthwise directions.

As illustrated in FIG. 2 the structure can be used as a climbing frame or as a support for a swing, slide, seesaw, or other device, by standing it on the end frame 12, and substituting for the end frame 13, a rigid end member 14, which is secured to the side frames 10 and 11, by clamping pieces 27 which engage the first two dowels 15 of the side frames 10 and 11 respectively. The clamping pieces 27 are hinged to the member 14 along their upper edges and are secured in place by wing nuts and bolts indicated at 28. Fixed along two of the

margins of the end member 14 are respective metal frames 29 extending upwards from the flat upper surface of the end member 14.

The end member 14 is shorter than the end frame 13 which it replaces, so that the side frames 10 and 11 converge upwardly, thus providing additional rigidity to the structure in its upright position, as shown in FIG. 2. The end member 14 is a moulding made from resin bonded glass fiber, or similar material.

10 In order to impart lateral stability to the structure the structure in the FIG. 2 mode is provided with a base comprising a flat board 30 foldable in the middle and having side members 31 secured to it. The base, furthermore, has planks 32 secured on it which engage between the dowels 20 of the end frame 12

15 to locate the end frame 12 on the base and also to afford a substantially flat floor. Triangular section wooden parts 33 engage the upper and lower members 21, 22 of the end frame 12 to provide a ramp between the portions of the floor defined by the base.

20 Extending between the corners of the base and the upper ends of the side frames 10 and 11 are steel channel section struts 34. These are secured to the side members 31 of the base by bolts 35 and at their other ends they are connected by hinges 36 to the upper or lower members 16, 17 of the side frames 10 or 11 respectively. Each of the hinges 36 is connected to the member 16 or 17 by a single pin to permit the strut to be moved angularly thus minimizing strain on the parts.

25 30 Although not shown, the struts 34 lie along the side frame members 16 and enclose them when the structure is used in the FIG. 1 configuration.

35 When the structure is used as shown in FIG. 1, the base can be used either as a table top, with the members 31 extending downwardly along the sides of the structure or alternatively as a floor beneath the playpen. The members 31, in this case, serve as feet to raise the floor a few inches above the ground.

40 Within the end member 14, which is of hollow inverted box form, there is disposed a bore (not illustrated) which is for suspending a swing, chair, harness, or other suspended device. A subframe can also be provided which is securable to the side frames 10 and 11 intermediate their ends when in the FIG. 2 mode, and on this can be supported a rocking horse or seesaw, or a slide.

45 45 An alternative longer slide can be supported on the end member 14. A flexible cover can be placed over the whole structure to form a tent.

50 The structure illustrated is intended primarily for indoors but an alternative form, possibly larger, can be provided for outside use. The struts 34, are in this case provided with feet extensions for driving into the ground, if required, to provide stability.

55 Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A childrens play device comprising a structure having two side frames, an end member hingedly connected to the side frames at one end of the structure, and one of two alternative interchangeable end members at the other end of the structure, one of said alternative end members being hingedly connectable to the side frames to form a collapsible playpen, or a base for a table or trampolene, or similar apparatus, wherein the side frames and end members are on edge, and the other of the alternative end members being rigidly securable at the ends of the side frames to form a climbing frame, or a support for a swing, slide, seesaw, or similar apparatus, wherein the rigid end member is uppermost.

2. A childrens play device as claimed in claim 1 in which the end members are identical to form the playpen or similar device, the end members being two part foldable frames.

3. A childrens play device as claimed in claim 1 having a base which can be used as a floor or which can be used as a table top supported on the top of the structure.

4. A childrens play device as claimed in claim 1 in which the rigid end member disposed at the top of the structure is a

moulding and is secured to the side frames of the structure by clamping means at its ends respectively.

5. A childrens play device as claimed in claim 4 in which the rigid end member has a pair of bars upstanding from it along two opposite edges respectively.

6. A childrens play device as claimed in claim 1 in which the structure has a base disposed to engage the end member remote from the rigid end member on which the structure

stands when the rigid end member is uppermost.

7. A childrens play device as claimed in claim 6 in which struts extend between the base and the side frames of the structure.

5 8. A childrens play device as claimed in claim 7 in which the struts are of channel section and are engageable on the side frames when they are not in use.

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