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(54) **PROTECTIVE PLAY ENCLOSURE**

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(76) Inventor: **Fen-Ying Lai**, Taichung City (TW)

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Correspondence Address:
**PILLSBURY WINTHROP SHAW PITTMAN,
LLP
P.O. BOX 10500
MCLEAN, VA 22102 (US)**

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(57) **ABSTRACT**

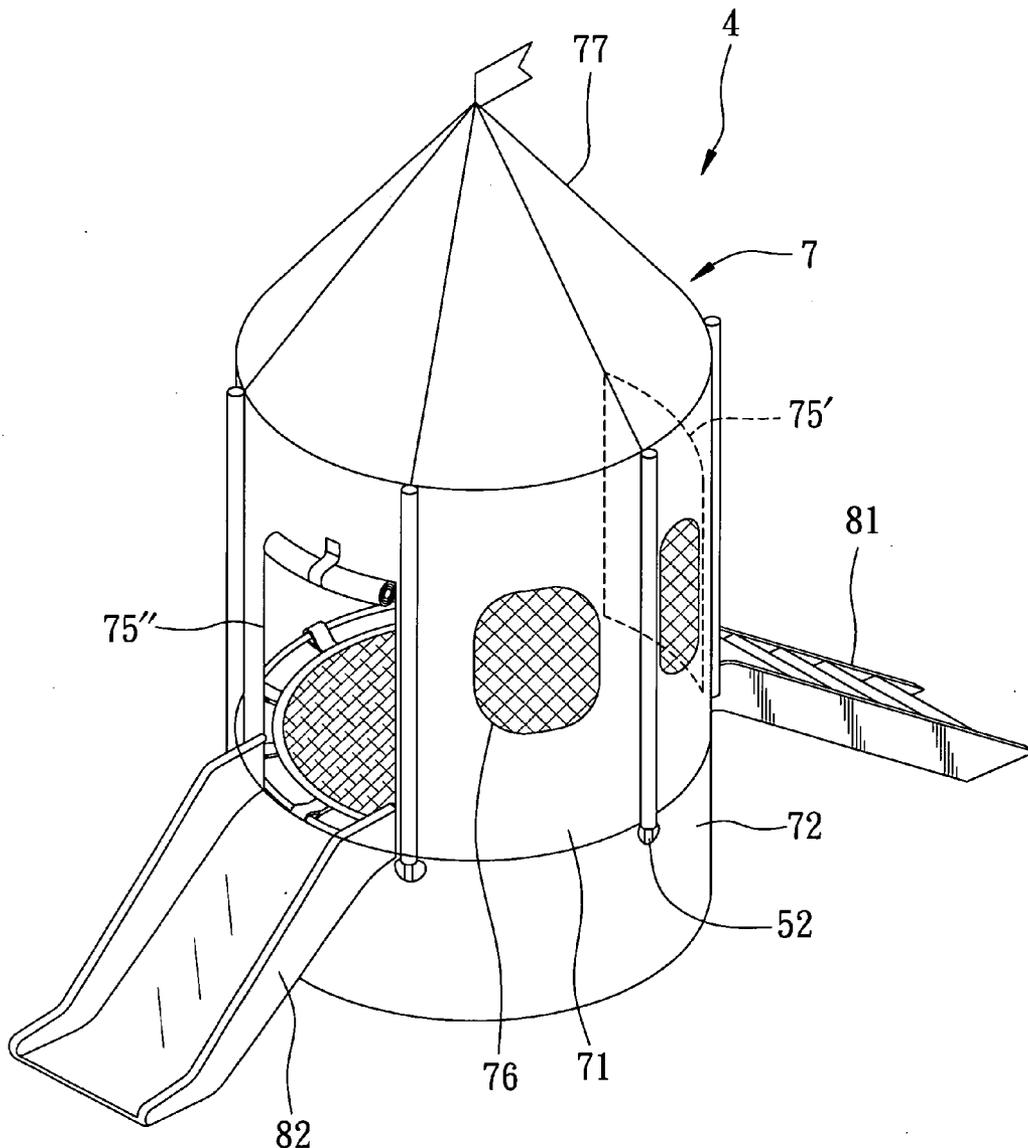
(21) Appl. No.: **12/010,531**

A protective play enclosure includes a frame unit, a bed unit mounted on the frame unit, and a tent mounted on the frame unit. The tent includes a surrounding wall and a roof member. The surrounding wall surrounds the bed unit and cooperates with the bed unit to confine a play chamber. The surrounding wall is formed with at least one doorway for access into the play chamber, and at least one window. The play chamber has an open side opposite to the bed unit. The roof member functions to close the open side of the play chamber.

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Jun. 22, 2007 (TW) 096210140



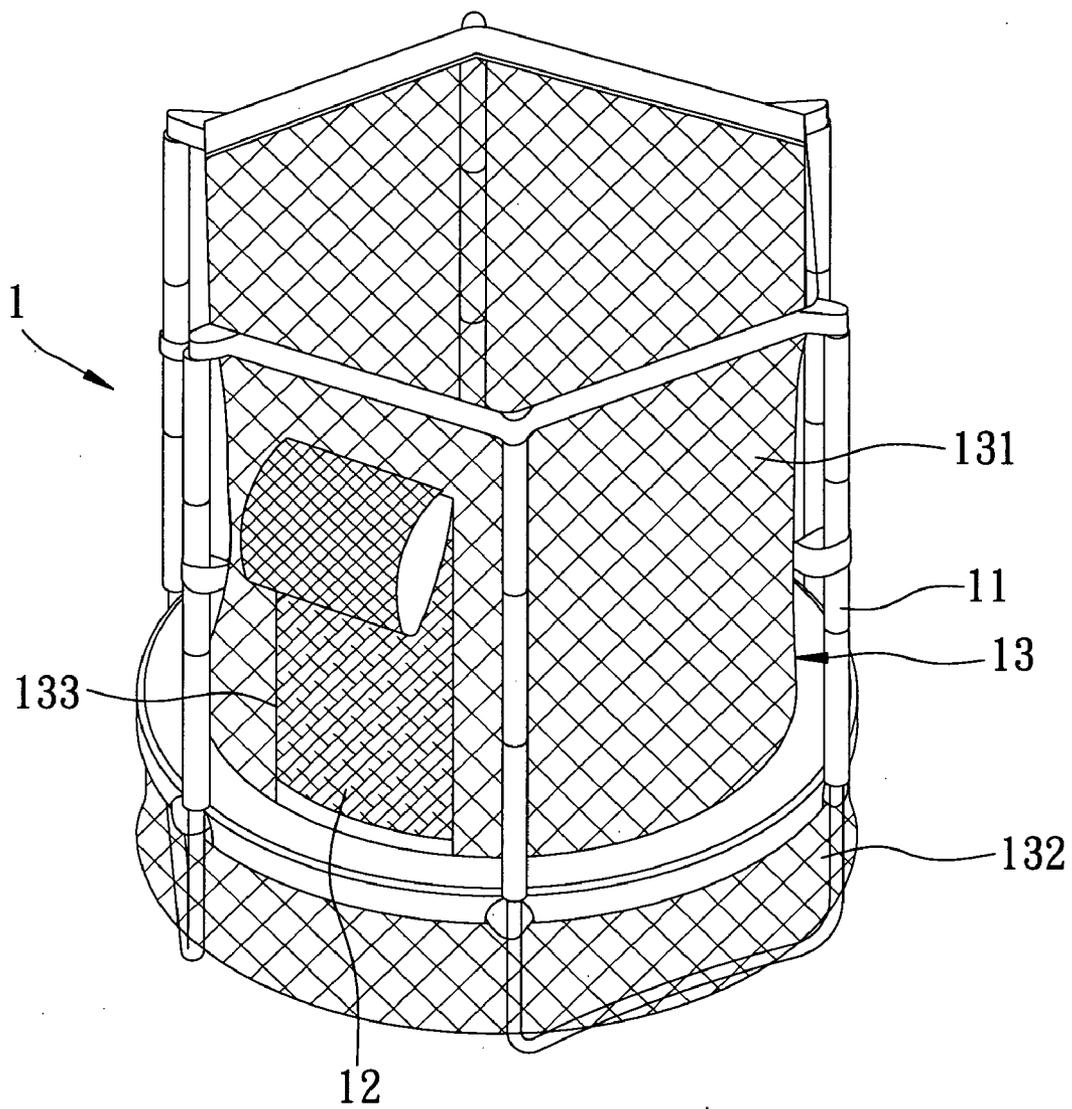


FIG. 1
PRIOR ART

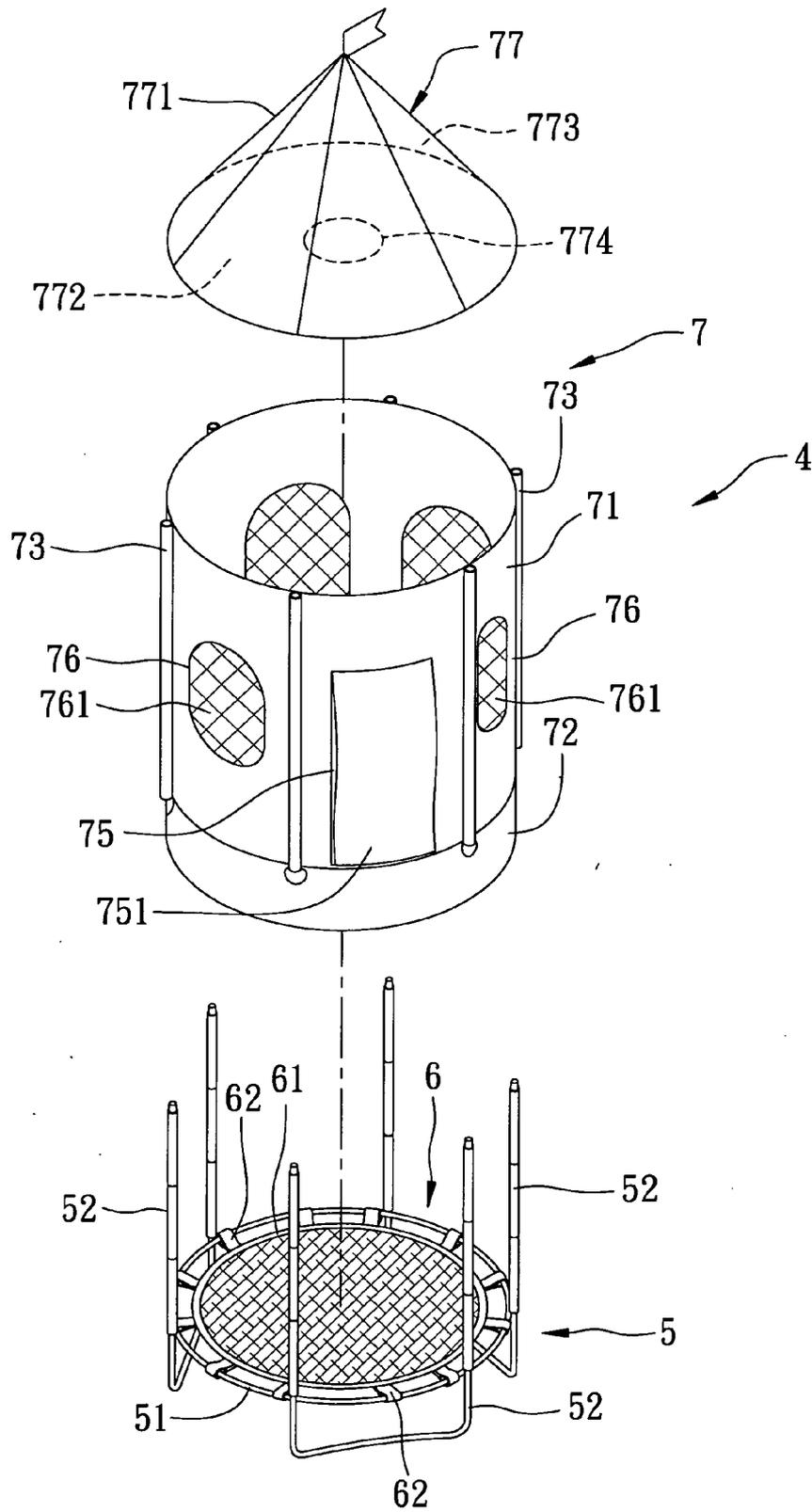


FIG. 3

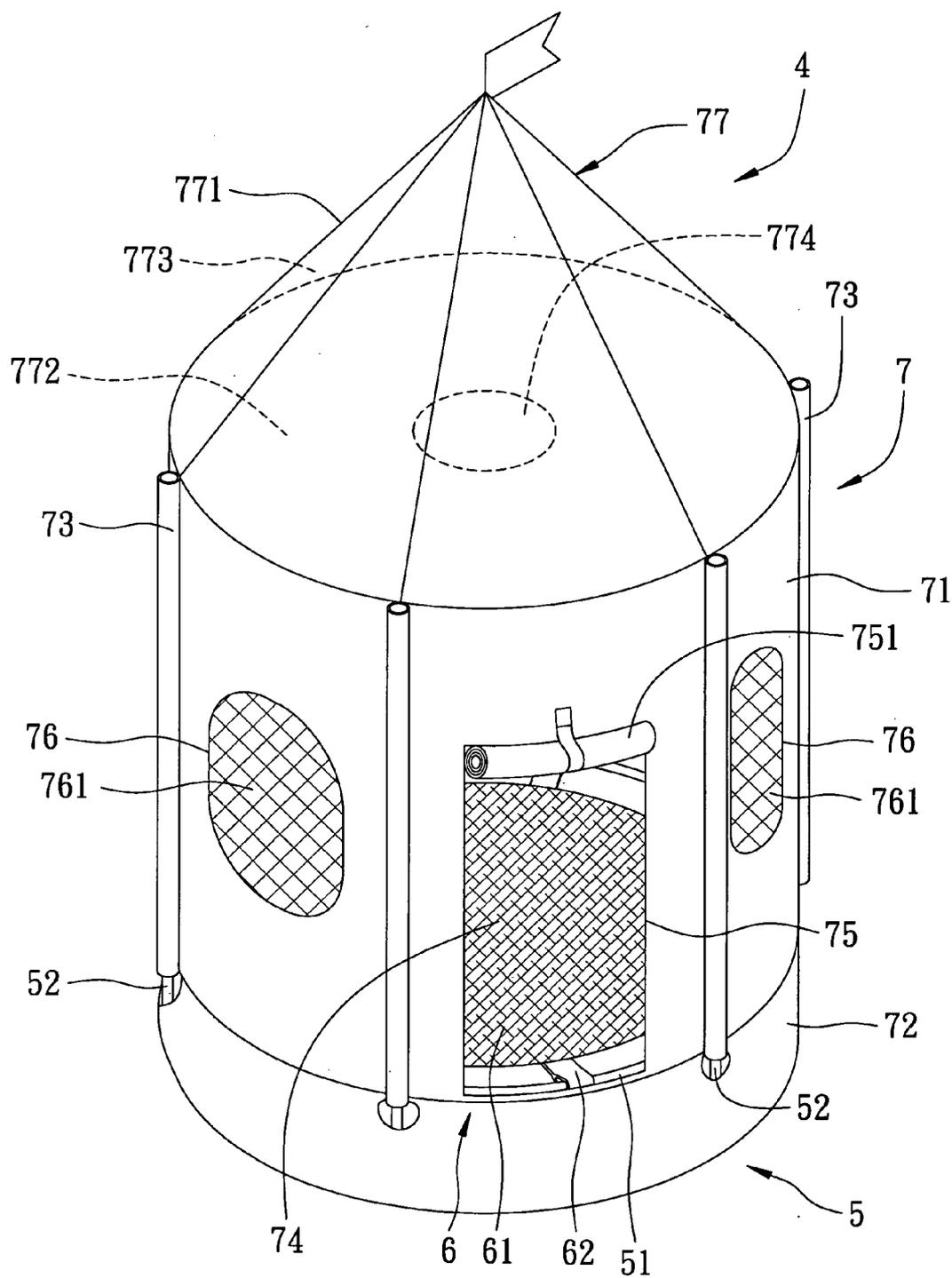


FIG. 4

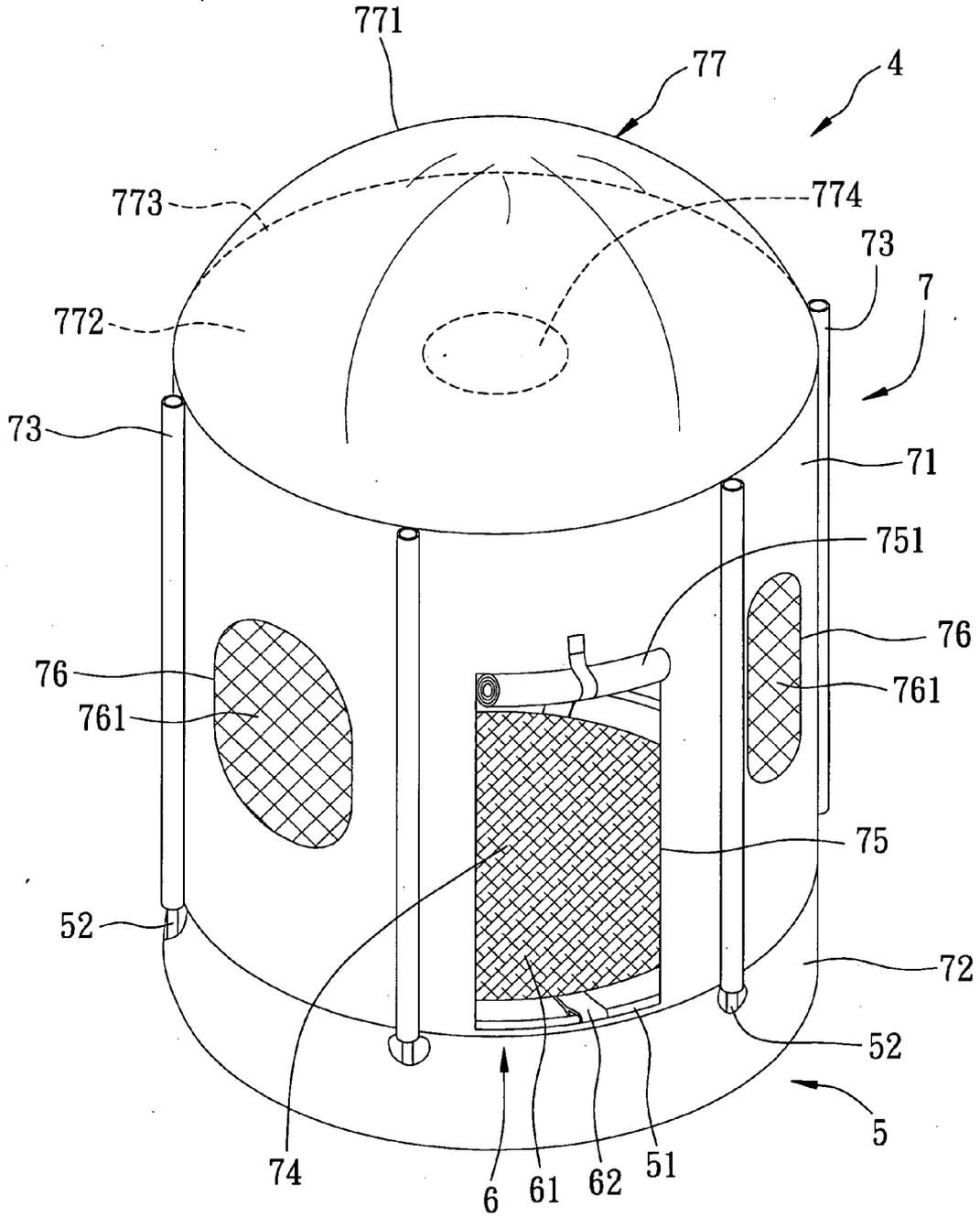


FIG. 5

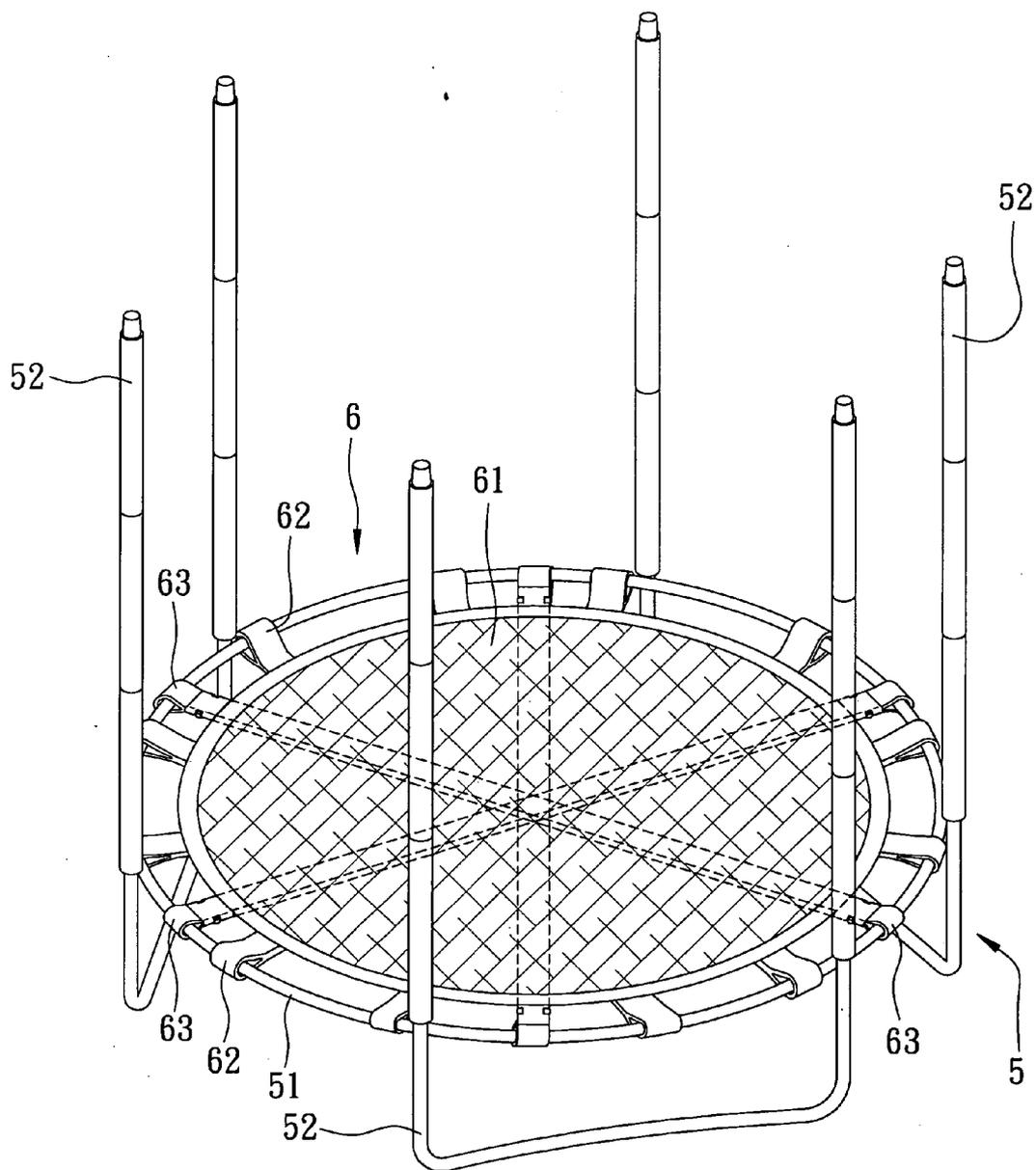


FIG. 6

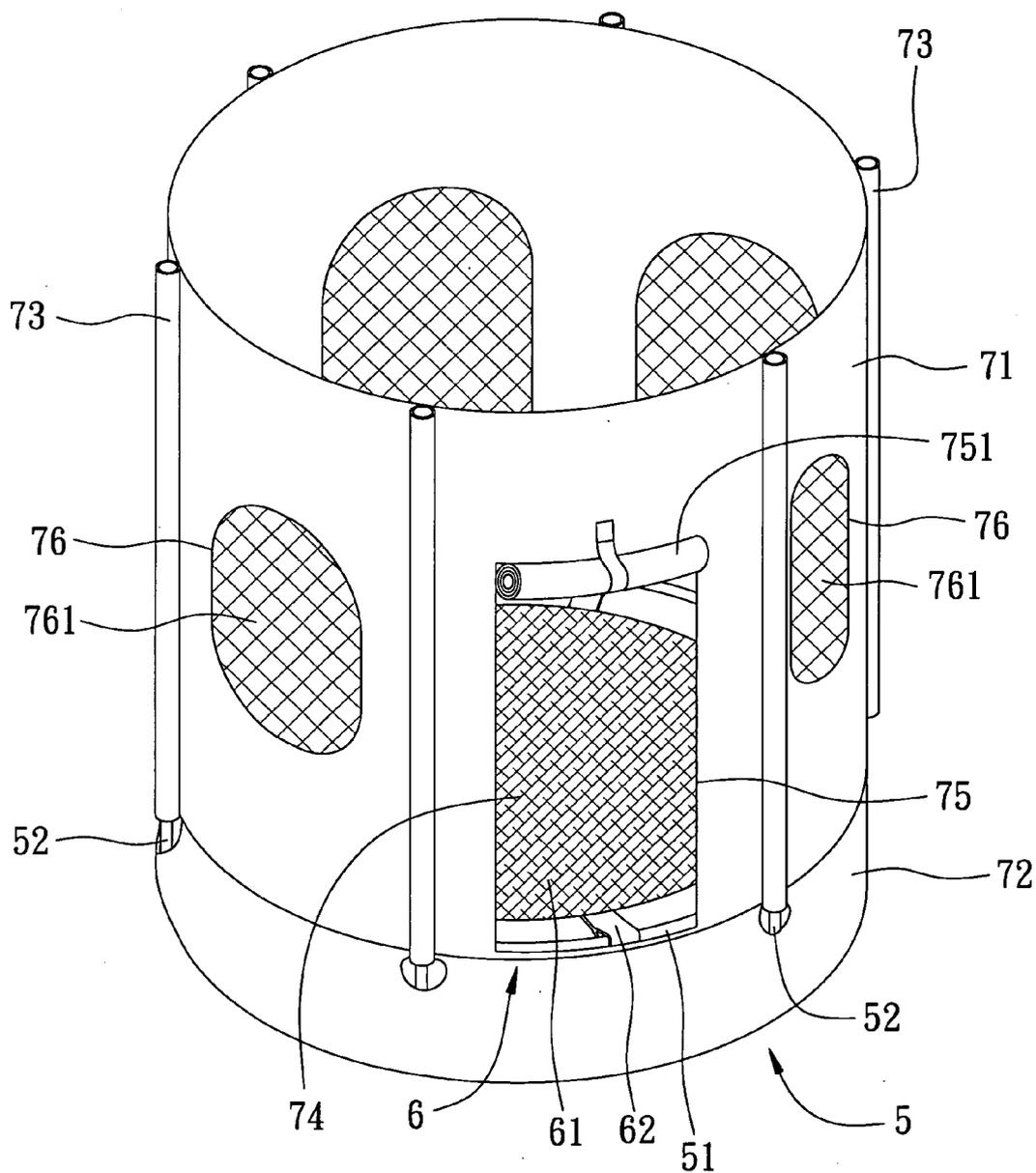


FIG. 7

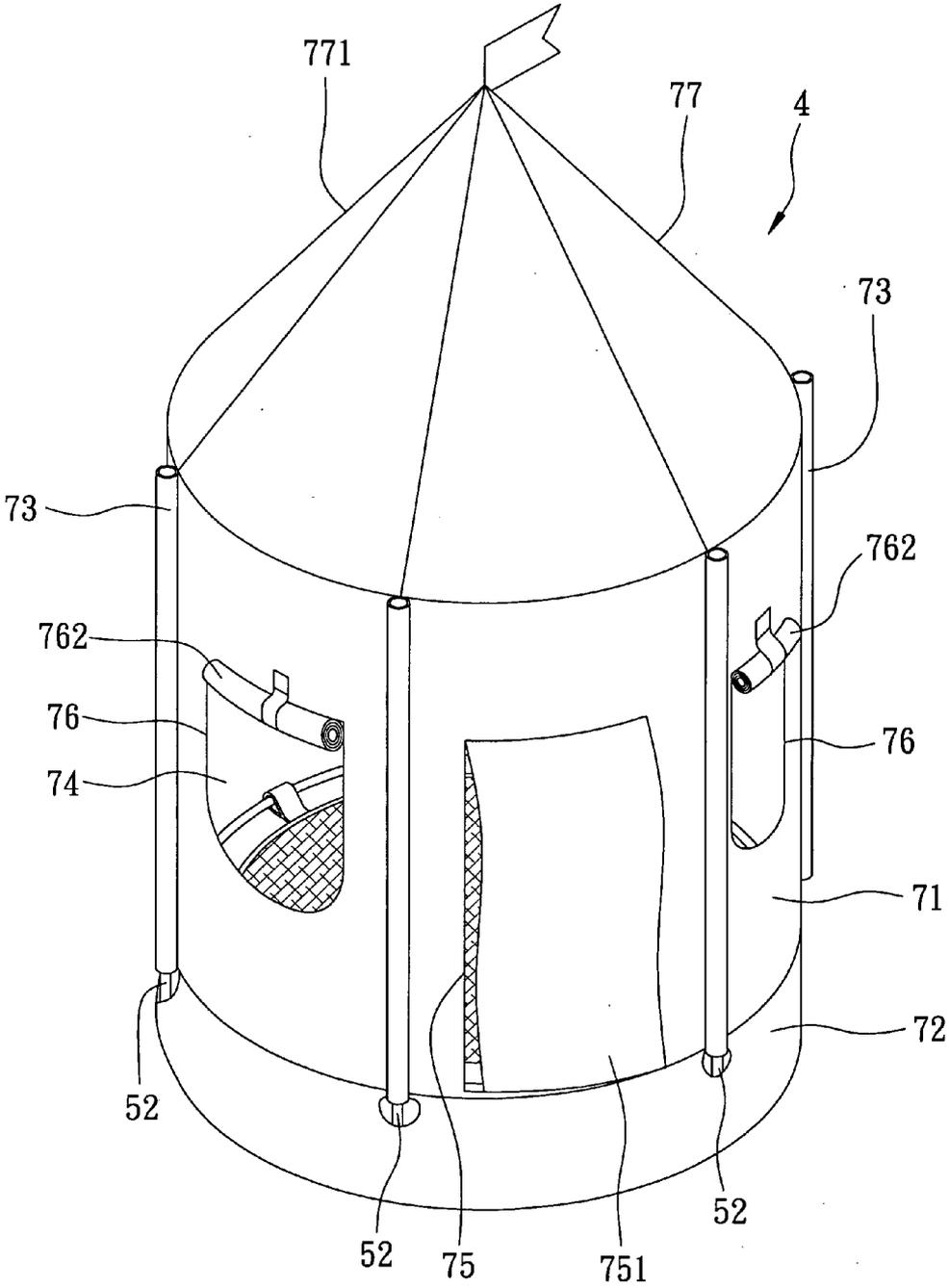


FIG. 8

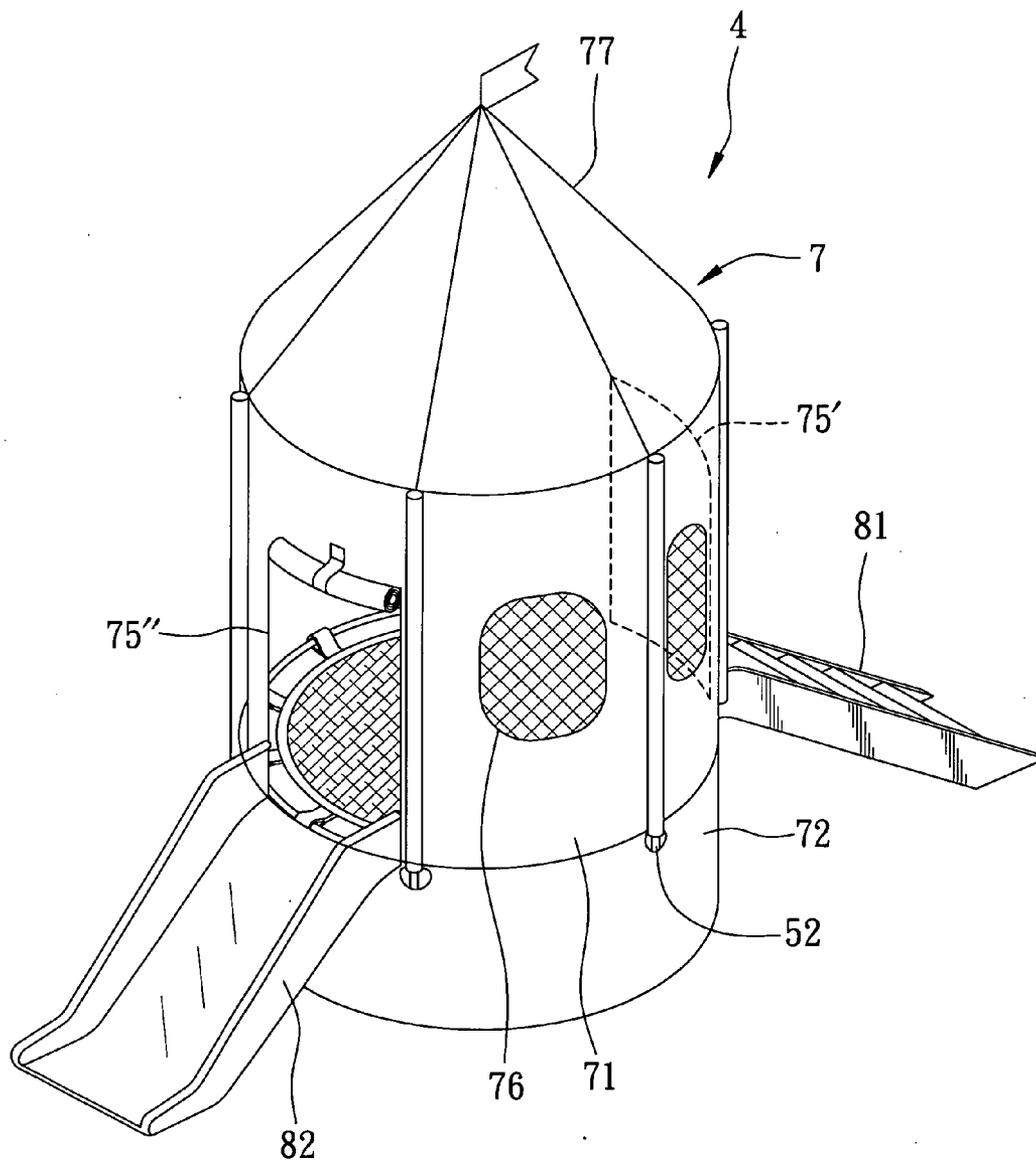


FIG. 9

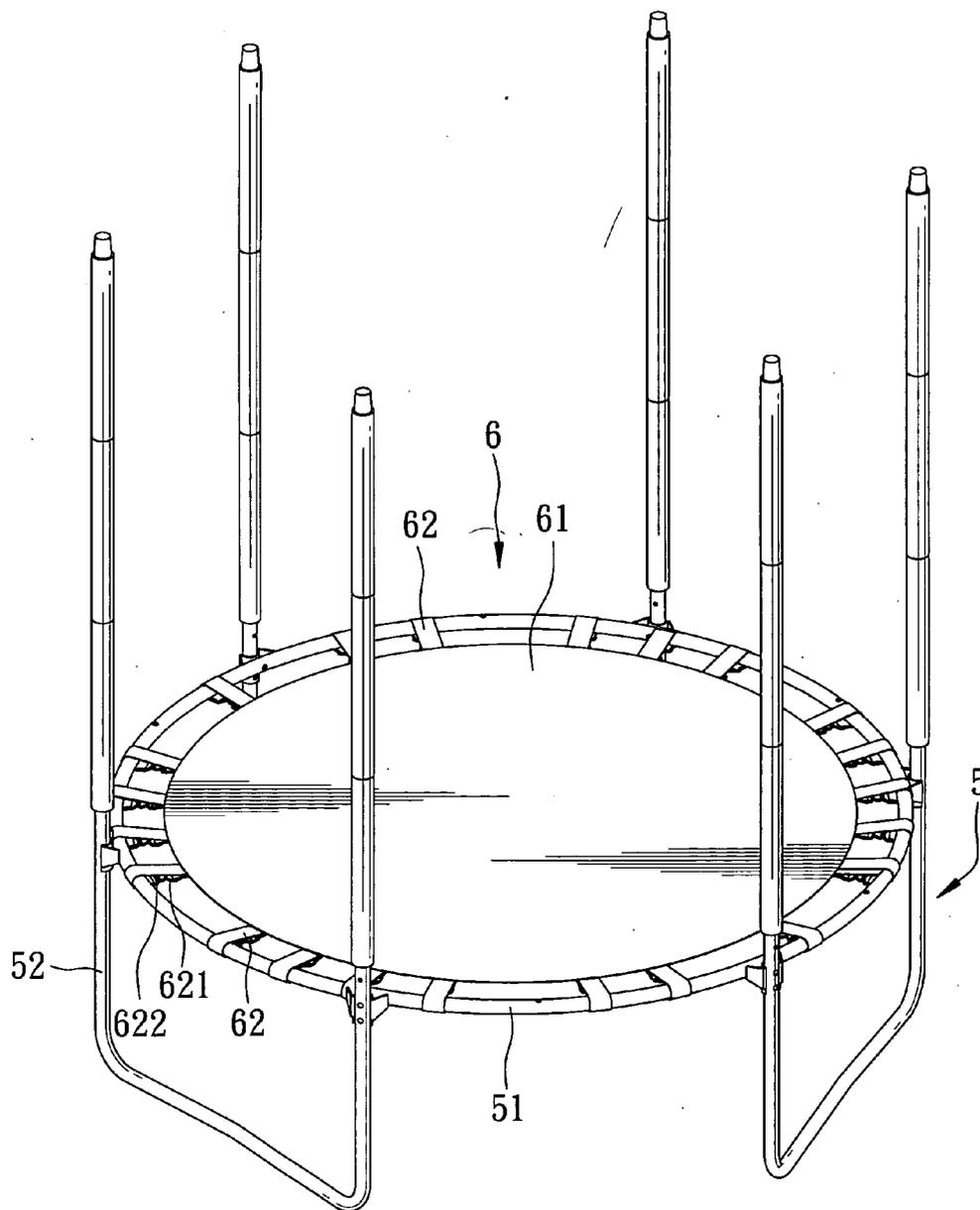


FIG. 10

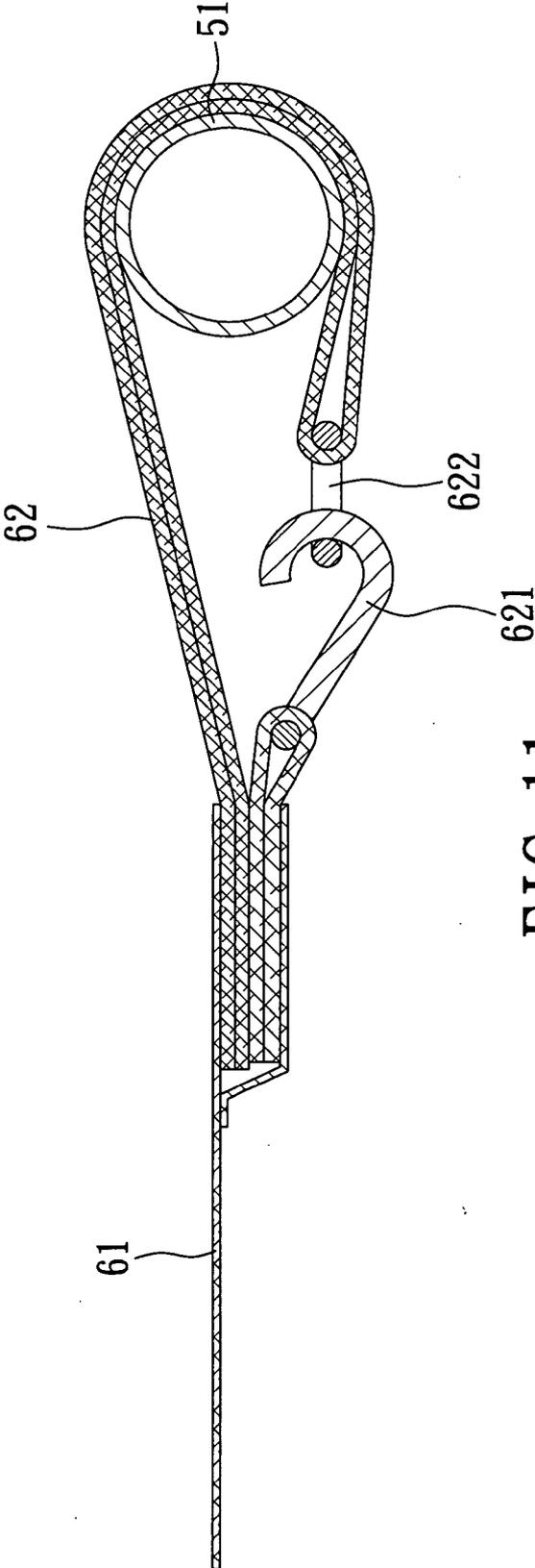


FIG. 11

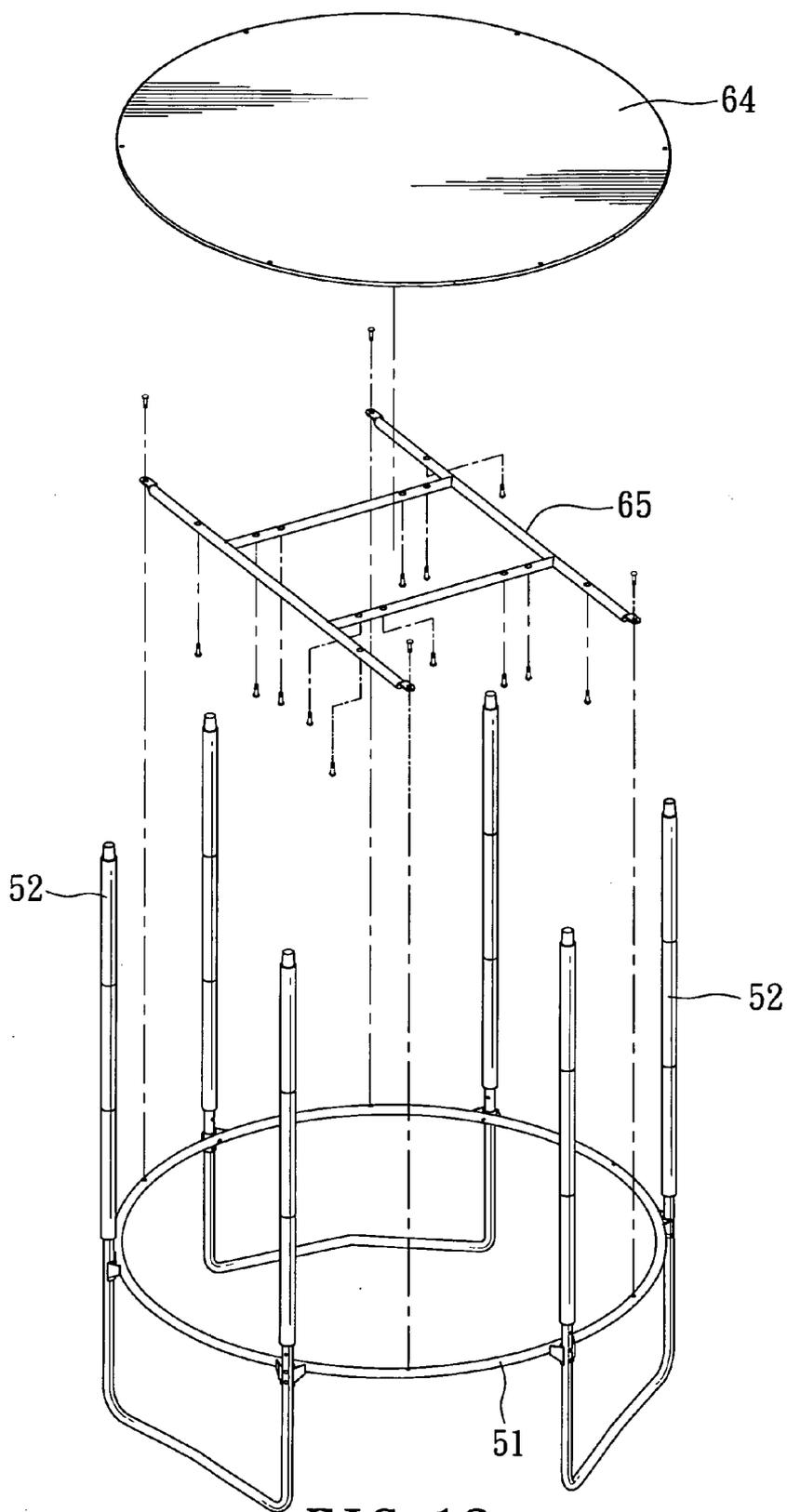


FIG. 12

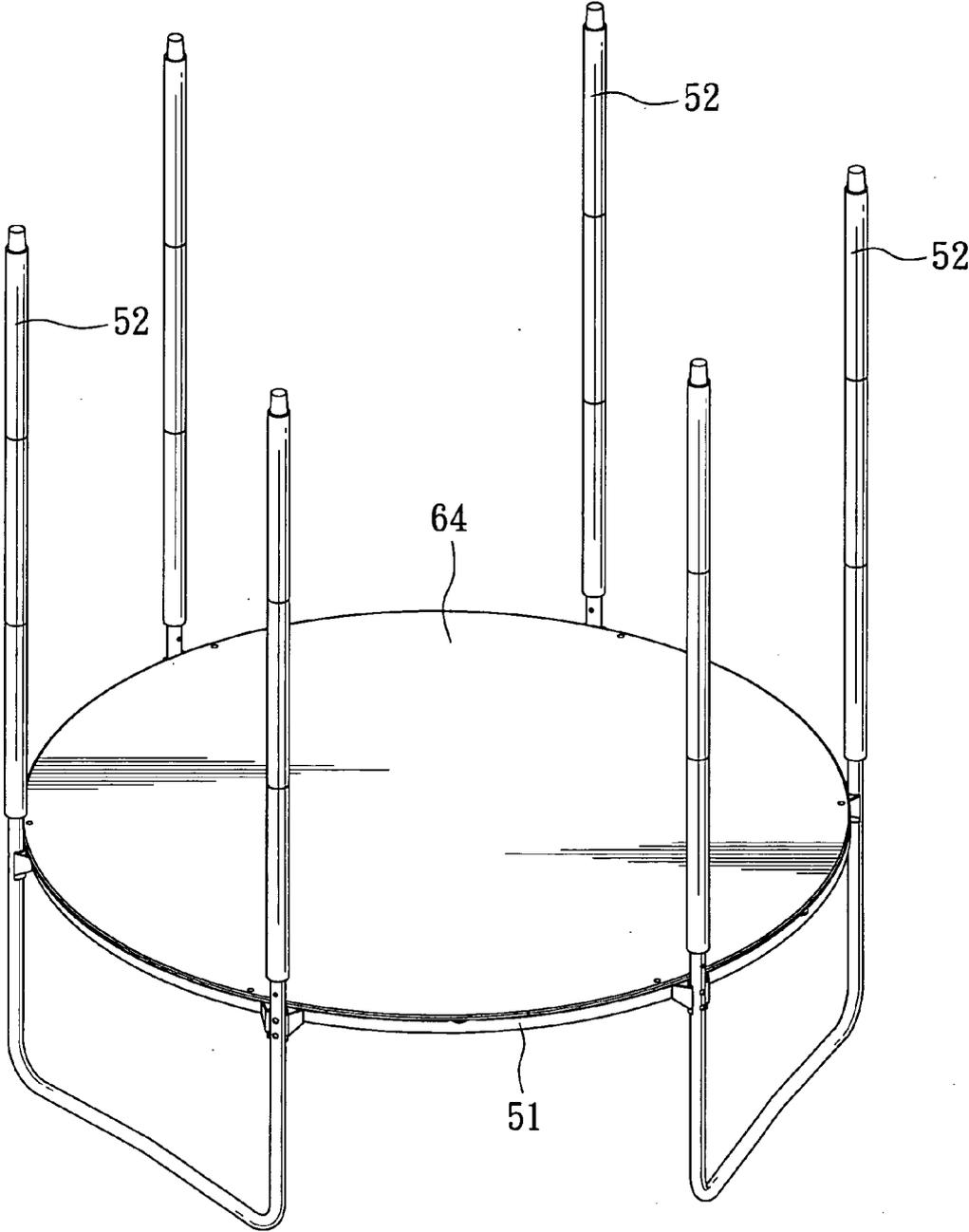


FIG. 13

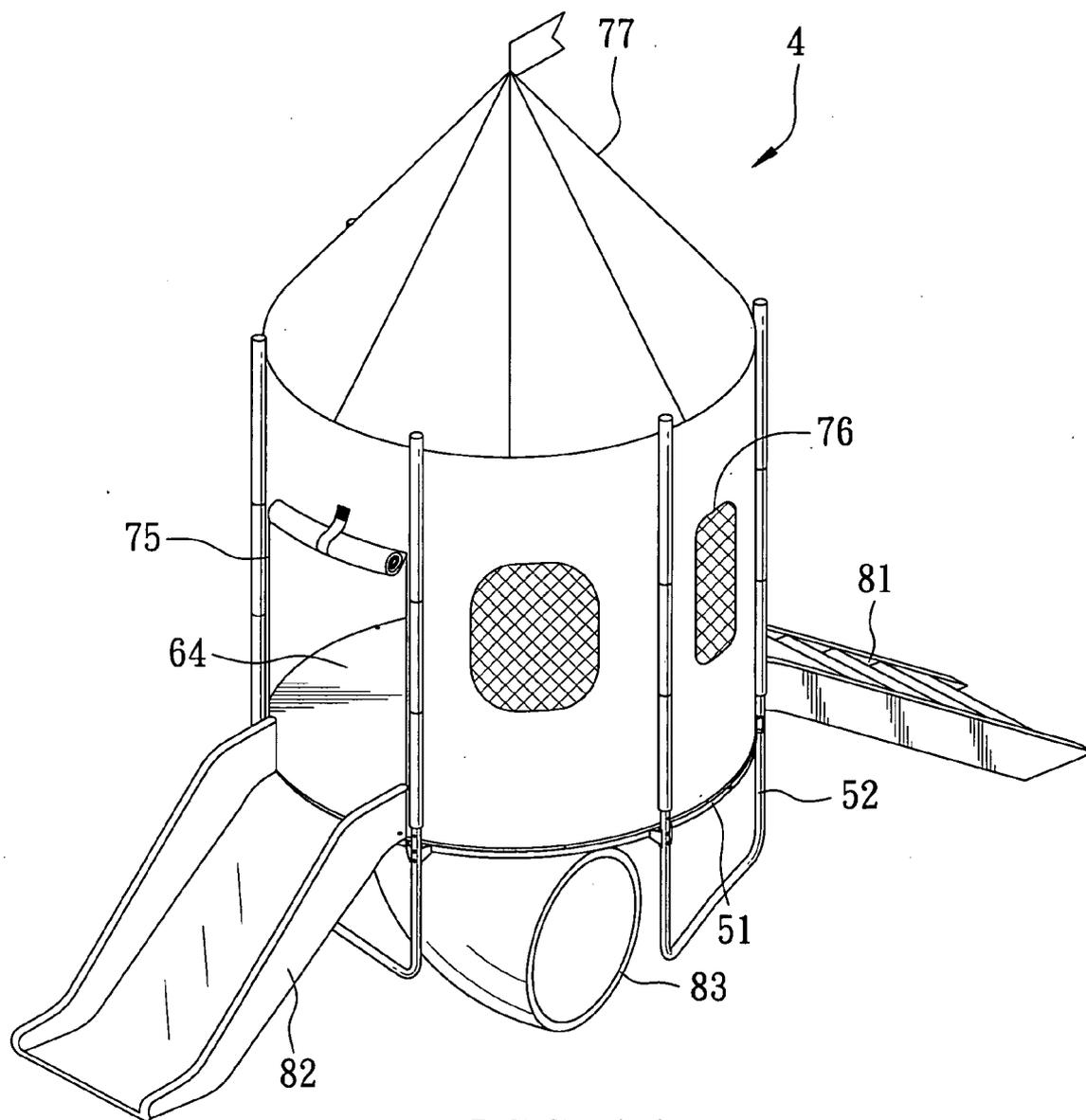


FIG. 14

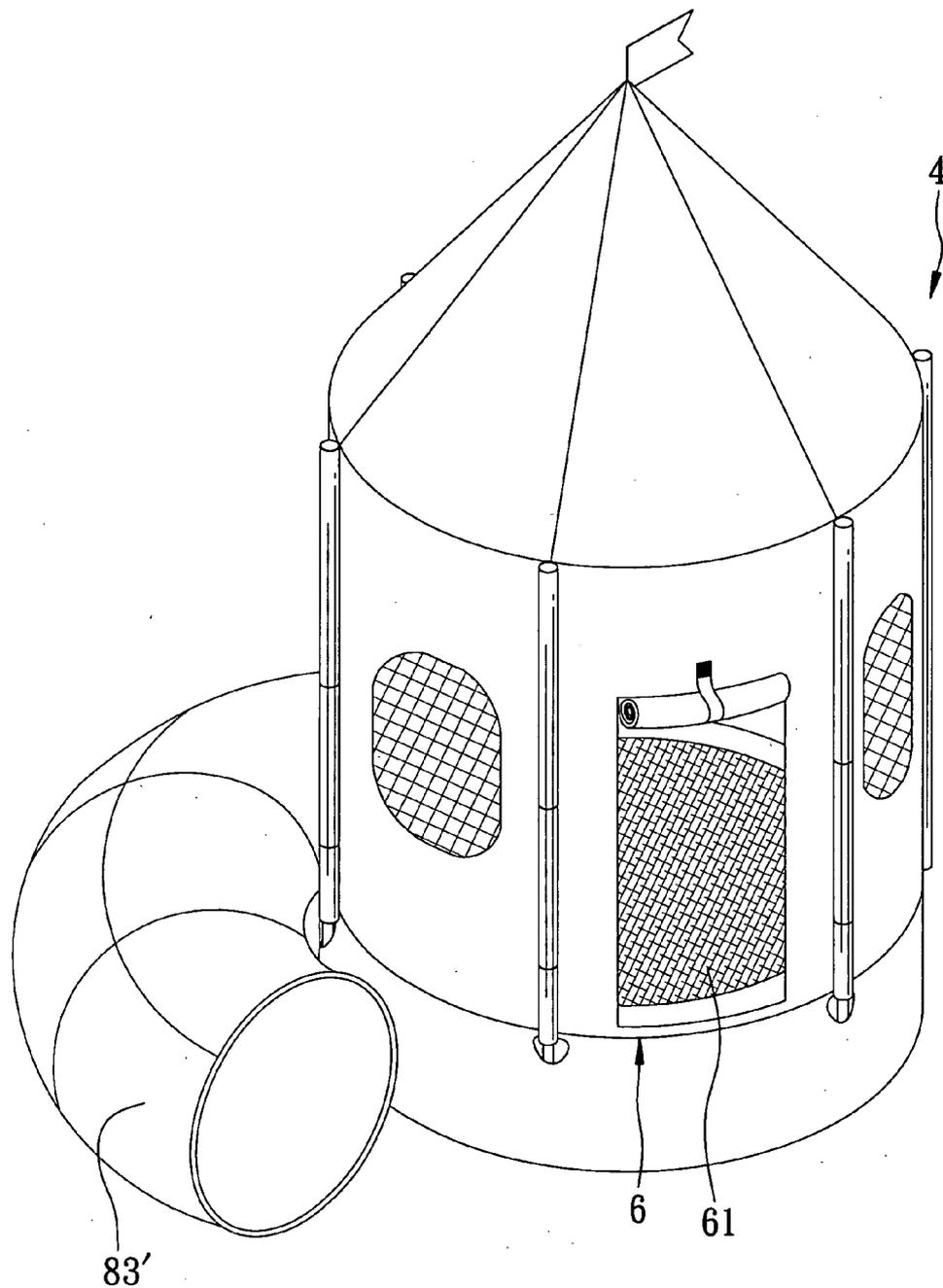


FIG. 15

PROTECTIVE PLAY ENCLOSURE

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority of Taiwanese application no. 096210140, filed on Jun. 22, 2007.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] This invention relates to a play enclosure, more particularly to a protective play enclosure.

[0004] 2. Description of the Related Art

[0005] FIG. 1 illustrates a conventional trampoline 1 which comprises a frame unit 11, a bed unit 12 mounted on the frame unit 11, and a protective fence unit 13, that is mounted on the frame unit 11 and that surrounds the bed unit 12. The protective fence unit 13 includes a surrounding net 131 and a protective skirt 132, which are disposed above and below the bed unit 12, respectively. The surrounding net 131 is formed with a doorway 133. When children are jumping on the bed unit 12 and land too close to the boundary of the bed unit 12, the surrounding net 131 prevents them from falling from the trampoline 1 to the ground. However, apart from this protective function, the surrounding net 131 is not designed to provide other functions. Consequently, consumers may be reluctant to pay a higher price for a product providing only one new function.

[0006] Referring to FIG. 2, U.S. Pat. No. 5,711,743 discloses a tent 3 that can be mounted on a trampoline 2. The trampoline 2 includes a frame unit 21 and a bed body 22 mounted on the frame unit 21. The tent 3 is mounted on the frame unit 21, and is formed with a doorway 31 and a plurality of windows 32. When mounted on the trampoline 2, the tent 3 can provide a space for a user to rest or sleep and can further provide protection against wind, rain, and insects. However, apart from this protective function, the tent 3 is not designed to provide other functions. As noted above in the case of the conventional trampoline with the protective fence unit, consumers would likely be reluctant to pay a higher price for a product providing only one new function.

SUMMARY OF THE INVENTION

[0007] Therefore, the object of the present invention is to provide a protective play enclosure that is capable of overcoming the aforementioned drawback of the prior art.

[0008] According to the present invention, there is provided a protective play enclosure that comprises a frame unit, a bed unit mounted on the frame unit, and a tent mounted on the frame unit. The tent includes a surrounding wall and a roof member. The surrounding wall surrounds the bed unit and cooperates with the bed unit to confine a play chamber. The surrounding wall is formed with at least one doorway for access into the play chamber, and at least one window. The play chamber has an open side opposite to the bed unit. The roof member functions to close the open side of the play chamber.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] Other features and advantages of the present invention will become apparent in the following detailed description of the preferred embodiments with reference to the accompanying drawings, of which:

[0010] FIG. 1 is a perspective view of a conventional trampoline with a protective fence unit;

[0011] FIG. 2 is a perspective view of a trampoline tent disclosed in U.S. Pat. No. 5,711,743;

[0012] FIG. 3 is an exploded perspective view of the first preferred embodiment of a protective play enclosure according to this invention;

[0013] FIG. 4 is an assembled perspective view of the first preferred embodiment of a protective play enclosure according to this invention;

[0014] FIG. 5 is a perspective view of a modification of the protective play enclosure of FIG. 4, illustrating a dome-shaped roof member;

[0015] FIG. 6 is a fragmentary perspective view of the first preferred embodiment of the protective play enclosure according to this invention, illustrating a bed unit with a plurality of non-elastic support components;

[0016] FIG. 7 is a perspective view of the protective play enclosure of FIG. 4, illustrating the protective play enclosure with the roof member removed;

[0017] FIG. 8 is a perspective view of a modification of the protective play enclosure of FIG. 4, illustrating a tent with roll-up curtains for windows thereof;

[0018] FIG. 9 is a perspective view of yet another modification of the protective play enclosure of FIG. 4, illustrating the protective play enclosure provided with a ladder and a slide;

[0019] FIG. 10 is a fragmentary perspective view of a second preferred embodiment of a protective play enclosure according to this invention, illustrating a bed unit mounted on a frame unit;

[0020] FIG. 11 is a fragmentary schematic cross-sectional view of the second preferred embodiment of the protective play enclosure according to this invention, illustrating an elastic anchoring component of the bed unit;

[0021] FIG. 12 is a fragmentary exploded perspective view of a modification of the second preferred embodiment of a protective play enclosure according to this invention, illustrating a rigid bed body and a reinforcing frame of a bed unit;

[0022] FIG. 13 is a fragmentary perspective view of the second preferred embodiment of the protective play enclosure according to this invention, illustrating the bed unit of FIG. 12 mounted on a frame unit;

[0023] FIG. 14 is an assembled perspective view of the second preferred embodiment of the protective play enclosure according to this invention; and

[0024] FIG. 15 is an assembled perspective view of a third preferred embodiment of the protective play enclosure according to this invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0025] Before the present invention is described in greater detail with reference to the preferred embodiments, it should be noted herein that like elements are denoted by the same reference numerals throughout the disclosure.

[0026] FIGS. 3 and 4 illustrate a first preferred embodiment of the protective play enclosure 4 according to this invention. The protective play enclosure 4 includes a frame unit 5, a bed unit 6 mounted on the frame unit 5, and a tent 7 mounted on the frame unit 5. The tent 7 includes a surrounding wall 71 and a roof member 77. The surrounding wall 71 surrounds an upper side of the bed unit 6 and cooperates with the bed unit 6 to confine a play chamber 74. The surrounding wall 71 is

formed with a doorway 75 for access into the play chamber 74, and a plurality of windows 76. The play chamber 74 has an open side opposite to the bed unit 6. The roof member 77 functions to close the open side of the play chamber 74.

[0027] Preferably, the frame unit 5 includes a circular bed frame 51 and three U-shaped leg frame members 52, which are distributed evenly around the periphery of the bed frame 51 and which are attached thereto.

[0028] Preferably, the bed unit 6 includes a flexible bed body 61 and a plurality of elastic anchoring components 62 for connecting the flexible bed body 61 to the frame unit 5. In this embodiment, each of the elastic anchoring components 62 includes an elastic strap. The elastic straps allow the flexible bed body 61 to produce a rebounding force in response to jumping of the user on the flexible bed body 61. Alternatively, each elastic anchoring component 62 could include an extension spring for producing the rebounding force.

[0029] Preferably, the tent 7 further includes a protective skirt 72 to surround a bottom side of the bed unit 6, and a plurality of sleeves 73 attached to the surrounding wall 71 for extension of the leg frame members 52 of the frame unit 5 thereinto. In this embodiment, the tent 7 further includes a roll-up curtain 751 for selectively covering and uncovering the doorway 75, and nets 761 for covering the windows 76. It is noted herein that the numbers of the doorway 75 and the windows 76 should not be limited to what are shown in the drawings, and could include any number from the minimum number of one to a plurality depending on design requirements.

[0030] Preferably, the roof member 77 includes a covering layer 771 and a partitioning layer 772, which is disposed between the covering layer 771 and the bed unit 6. The covering layer 771 cooperates with the partitioning layer 772 to confine a storage space 773. The partitioning layer 772 is formed with an access opening 774 for providing access into the storage space 773. In this embodiment, the roof member 77 is detachably mounted on the surrounding wall 71 with the use of a zipper or a hook-and-loop fastener (not shown). Alternatively, the roof member 77 could be detachably mounted on the frame unit 5. In this case, a quick release buckle fastener could be used as the mounting means. The covering layer 771 of the roof member 77 could be designed to resemble a polyhedron cone (see FIG. 4) or to have a dome-shaped appearance (see FIG. 5), thereby providing the protective play enclosure 4 with an attractive appearance.

[0031] The following description explains how the protective play enclosure 4 protects the user at play, and how the play chamber 74 might be used for various activities.

[0032] In FIG. 4, the first preferred embodiment is provided with the roof member 77, which closes the open side of the play chamber 74 to form a complete tent shape. The user may enter or exit the play chamber 74 through the doorway 75. If the protective play enclosure 4 is set up outdoors, the roof member 77 can protect the user from wind, rain, and insects or small animals should the user choose to rest or sleep inside the play chamber 74.

[0033] As mentioned hereinabove, the flexible bed body 61 is connected to the frame unit 5 through the elastic anchoring components 62, thereby permitting the user to jump on top of the bed unit 6. Such an arrangement, however, may result in user discomfort should the user choose to rest or sleep on the bed unit 6. Therefore, to accommodate the user during periods of rest or sleep, the flexible bed body 61 can be stabilized with the inclusion of a plurality of non-elastic support com-

ponents 63 (see FIG. 6) in the bed unit 6. The non-elastic support components 63 can be removably attached to the bed frame 51 of the frame unit 5 for supporting the flexible bed body 61 thereon, so that the user will perceive the flexible bed body 61 as stable.

[0034] Moreover, the roof member 77 of this embodiment provides the storage space 773 accessible through the access opening 774 for storing articles.

[0035] FIG. 7 illustrates the protective play enclosure of the first preferred embodiment with the roof member 77 removed to uncover the open side of the play chamber 74. If, while jumping, the user stumbles or lands too close to the boundary of the flexible bed body 61, the surrounding wall 71 of the tent 7 functions to prevent the user from falling from the flexible bed body 61 to the ground. In addition, the protective skirt 72 functions to prevent small children from crawling under the flexible bed body 61 while a user is jumping, thereby guarding against accidental injury.

[0036] Referring to FIG. 8, the tent 7 could include roll-up curtains 762 for selectively covering and uncovering the windows 76 instead of the nets 761 (see FIGS. 3 and 4). During playtime, users could opt to roll-up the curtains 762 either partially or completely, and challenge themselves to a game of catch in which one user stands inside the play chamber 74 and another user stands outside the play chamber 74, and the users attempt to throw the ball to one another through one of the partially or completely open windows 76. The protective play enclosure 4 according to this invention can thereby add challenge and interest to the game of catch.

[0037] Referring to FIG. 9, which is a modification of the protective play enclosure 4 of FIGS. 3 and 4, the surrounding wall 71 of the tent 7 is formed with a pair of doorways 75', 75'', and the protective play enclosure 4 further includes a ladder 81 situated at one of the doorways 75', and a slide 82 situated at the other of the doorways 75''. When a user wants to play on the slide 82, the user can climb up the ladder 81 and enter the play chamber 74 through the respective doorway 75', and then exit through the other doorway 75'' using the slide 82.

[0038] FIGS. 10 to 14 illustrate a second preferred embodiment of the protective play enclosure 4 according to this invention. In the second preferred embodiment, each elastic anchoring component 62 of the bed unit 6 has a pair of strap sections. One of the strap sections is provided with a hook 621, and the other of the strap sections is provided with a loop 622 to engage the hook 621 so as to interconnect removably the strap sections, thereby permitting removal of each of the elastic anchoring components 62 from the bed frame 51 of the frame unit 5 (see FIGS. 10 and 11).

[0039] The bed unit 6 of the second preferred embodiment further includes a rigid bed body 64 mounted removably on the frame unit 5, and a reinforcing frame 65 mounted on an underside of the rigid bed body 64 (see FIGS. 12 and 13). The rigid bed body 64 may be a board made of wood or plastic. The user, after removing the flexible bed body 61 from the frame unit 5, may opt to mount the rigid bed body 64 on the frame unit 5, which may be more suitable to resting or some play activities. The rigid bed body 64 of the second preferred embodiment also provides for the safe use of a play tunnel 83 disposed between the underside of the rigid bed body 64 and the ground (see FIG. 14).

[0040] FIG. 15 illustrates a third preferred embodiment of the protective play enclosure 4 according to this invention. In this embodiment, the protective play enclosure 4 further includes a play tunnel 83'. One open end section of the play

tunnel 83' is disposed at a doorway (not visible in the drawing) and the other open end section is disposed on the ground along an outer side of the play enclosure 4. Since the play tunnel 83' is not disposed underneath the bed unit 6, a user may jump on the flexible bed body 61 without affecting the safety of a user playing inside the play tunnel 83'.

[0041] It has thus been shown that the protective play enclosure 4 of this invention provides a tent function to shelter the user, a storage function inside the roof member 77, a safety function in protecting the user from injury, a creative play function as described in the game of catch, and a slide function.

[0042] While the present invention has been described in connection with what are considered the most practical and preferred embodiments, it is understood that this invention is not limited to the disclosed embodiments but is intended to cover various arrangements included within the spirit and scope of the broadest interpretation so as to encompass all such modifications and equivalent arrangements.

What is claimed is:

1. A protective play enclosure, comprising:

- a frame unit;
- a bed unit mounted on said frame unit; and
- a tent mounted on said frame unit, said tent including
 - a surrounding wall surrounding said bed unit, and cooperating with said bed unit to confine a play chamber, said surrounding wall being formed with at least one doorway for access into said play chamber, and at least one window, said play chamber having an open side opposite to said bed unit, and
 - a roof member for closing said open side of said play chamber.

2. The protective play enclosure as claimed in claim 1, wherein said bed unit includes a flexible bed body and a plurality of elastic anchoring components for connecting said bed body to said frame unit.

3. The protective play enclosure as claimed in claim 2, wherein each of said elastic anchoring components includes an elastic strap.

4. The protective play enclosure as claimed in claim 3, wherein each of said elastic anchoring components has a pair of strap sections, one of said strap sections being provided with a hook, the other of said strap sections being provided with a loop to engage said hook so as to interconnect removably said strap sections, thereby permitting removal of each of said elastic anchoring components from said frame unit.

5. The protective play enclosure as claimed in claim 2, wherein each of said elastic anchoring components includes an extension spring.

6. The protective play enclosure as claimed in claim 2, wherein each of said elastic anchoring components includes a

hook and loop fastening unit for attaching removably each of said elastic anchoring components to said frame unit.

7. The protective play enclosure as claimed in claim 2, wherein said bed unit further includes a plurality of non-elastic support components removably attached to said frame unit and supporting said flexible bed body thereon.

8. The protective play enclosure as claimed in claim 2, wherein said roof member of said tent is detachably mounted on said frame unit.

9. The protective play enclosure as claimed in claim 2, wherein said roof member of said tent is detachably mounted on said surrounding wall.

10. The protective play enclosure as claimed in claim 9, further comprising a zipper for detachably mounting said roof member of said tent on said surrounding wall.

11. The protective play enclosure as claimed in claim 9, wherein said tent further includes a plurality of sleeves attached to said surrounding wall for extension of said frame unit thereinto.

12. The protective play enclosure as claimed in claim 11, wherein said tent further includes a roll-up curtain for selectively covering and uncovering said doorway.

13. The protective play enclosure as claimed in claim 11, wherein said tent further includes a net for covering said window.

14. The protective play enclosure as claimed in claim 11, wherein said tent further includes a roll-up curtain for selectively covering and uncovering said window.

15. The protective play enclosure as claimed in claim 11, further comprising a ladder situated at said doorway of said tent.

16. The protective play enclosure as claimed in claim 11, wherein said surrounding wall of said tent is formed with a pair of said doorways, said protective play enclosure further comprising a ladder situated at one of said doorways, and a slide situated at the other of said doorways.

17. The protective play enclosure as claimed in claim 1, wherein said bed unit includes a rigid bed body mounted on said frame unit.

18. The protective play enclosure as claimed in claim 17, wherein said bed unit includes a reinforcing frame mounted on an underside of said rigid bed body.

19. The protective play enclosure as claimed in claim 17, further comprising a play tunnel disposed between an underside of said rigid bed body and the ground.

20. The protective play enclosure as claimed in claim 2, further comprising a play tunnel disposed on the ground along an outer side of said protective play enclosure.

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