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(54) **INFLATABLE AND EXPANDABLE SLIDE AND POOL CONSTRUCTION**

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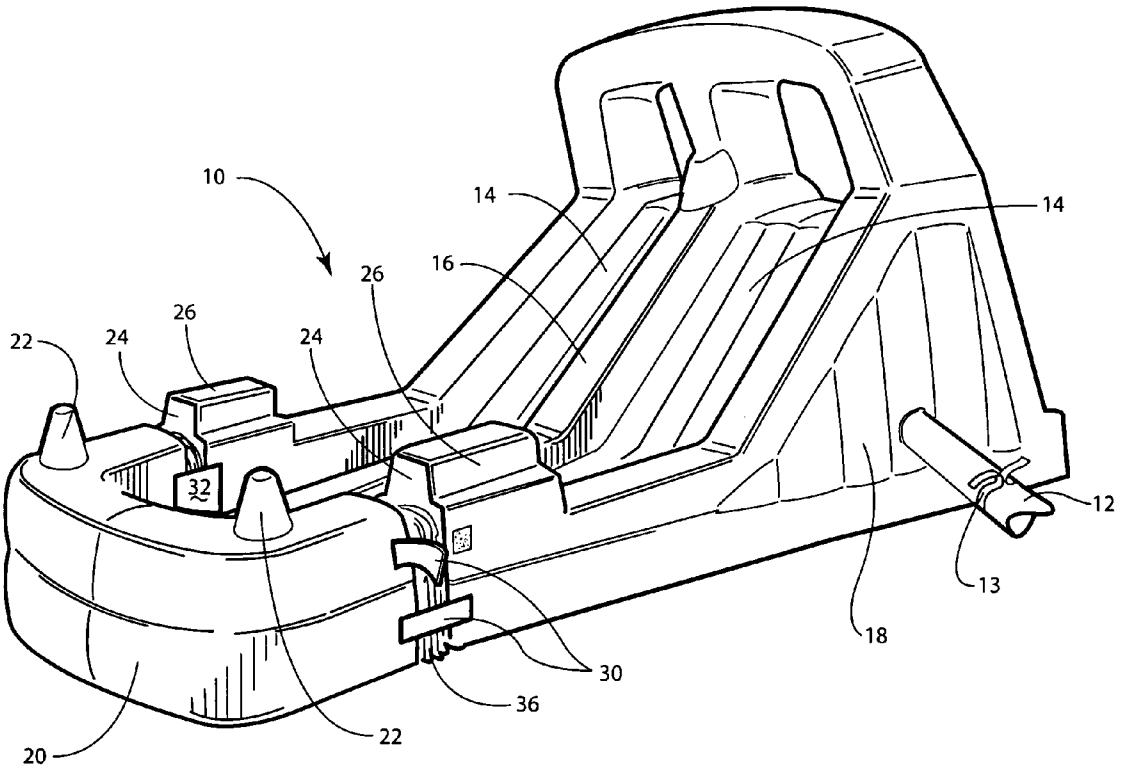
(57) **ABSTRACT**

The invention comprises an inflatable and expandable slide and pool construction that permits the user to selectively change the structure of the slide by expanding it to include a pool or basin at the end of the slide. The pool portion may be releasably attached to the front of the slide and may include inflatable sides and an inflatable end bumper. If the slide is a continuous airflow inflatable, the sides of the pool portion may be inflated by the air blower when the sides are released from their attachment to the end of the slide.



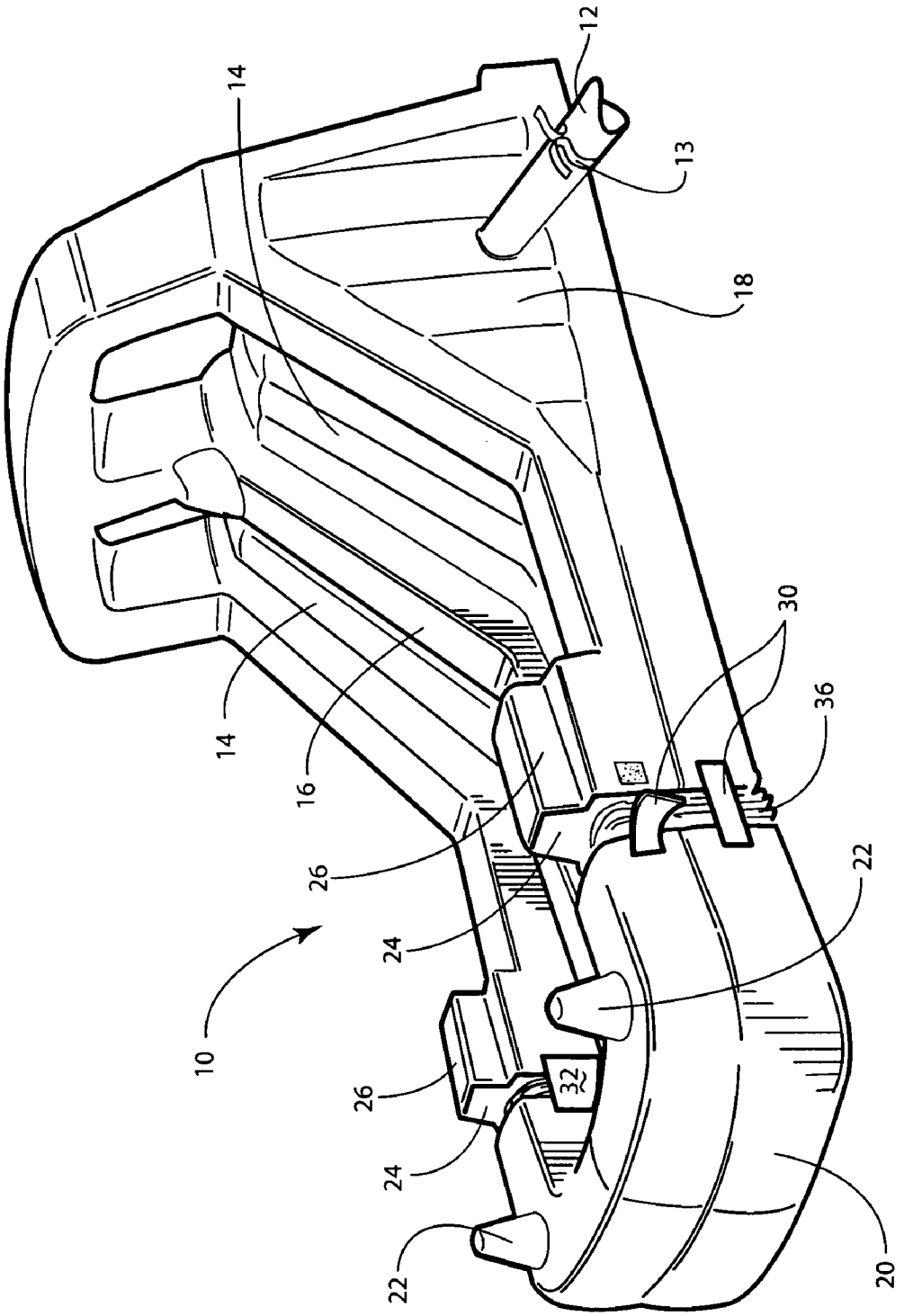


Fig. 1

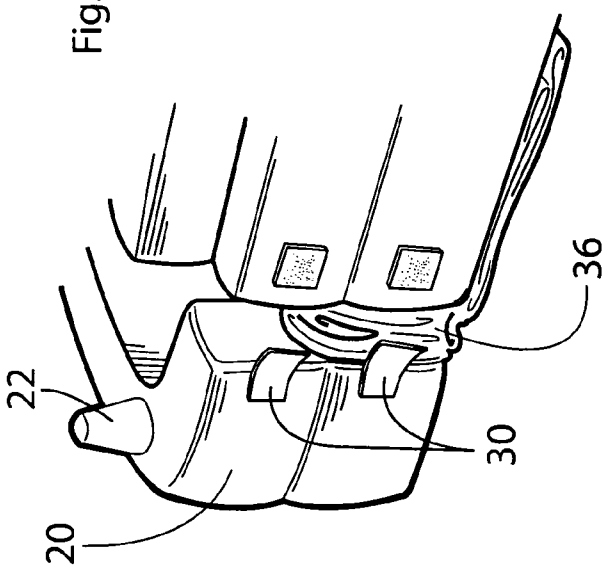


Fig. 2

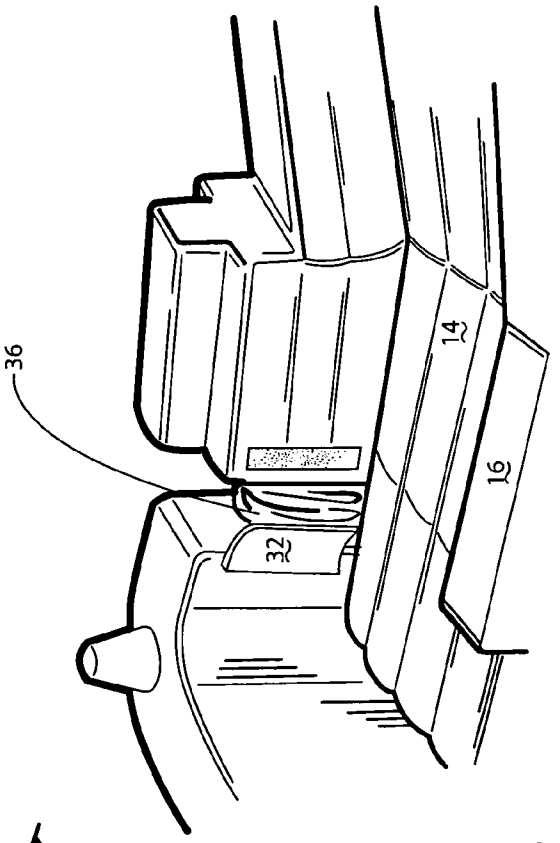


Fig. 3

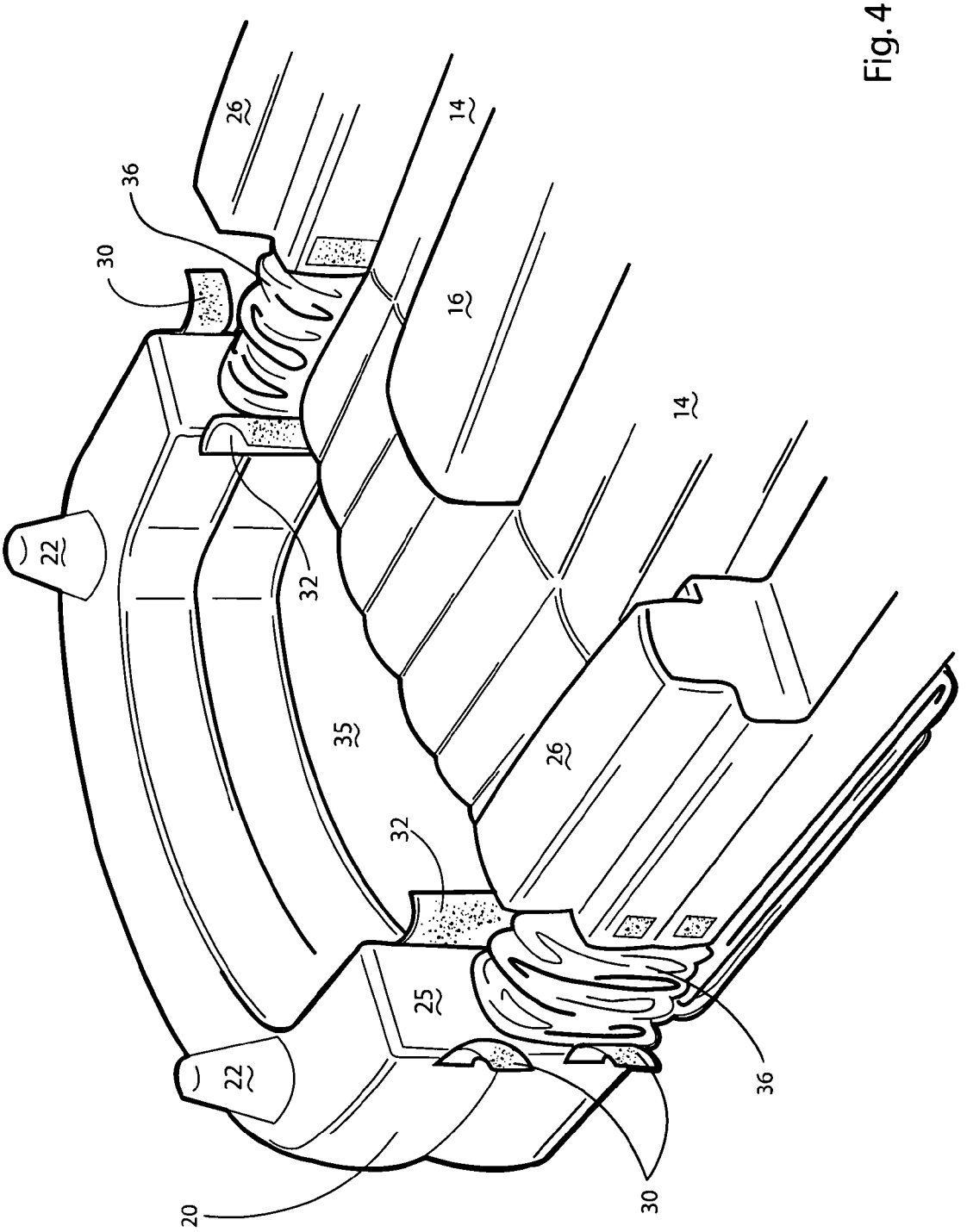


Fig. 4

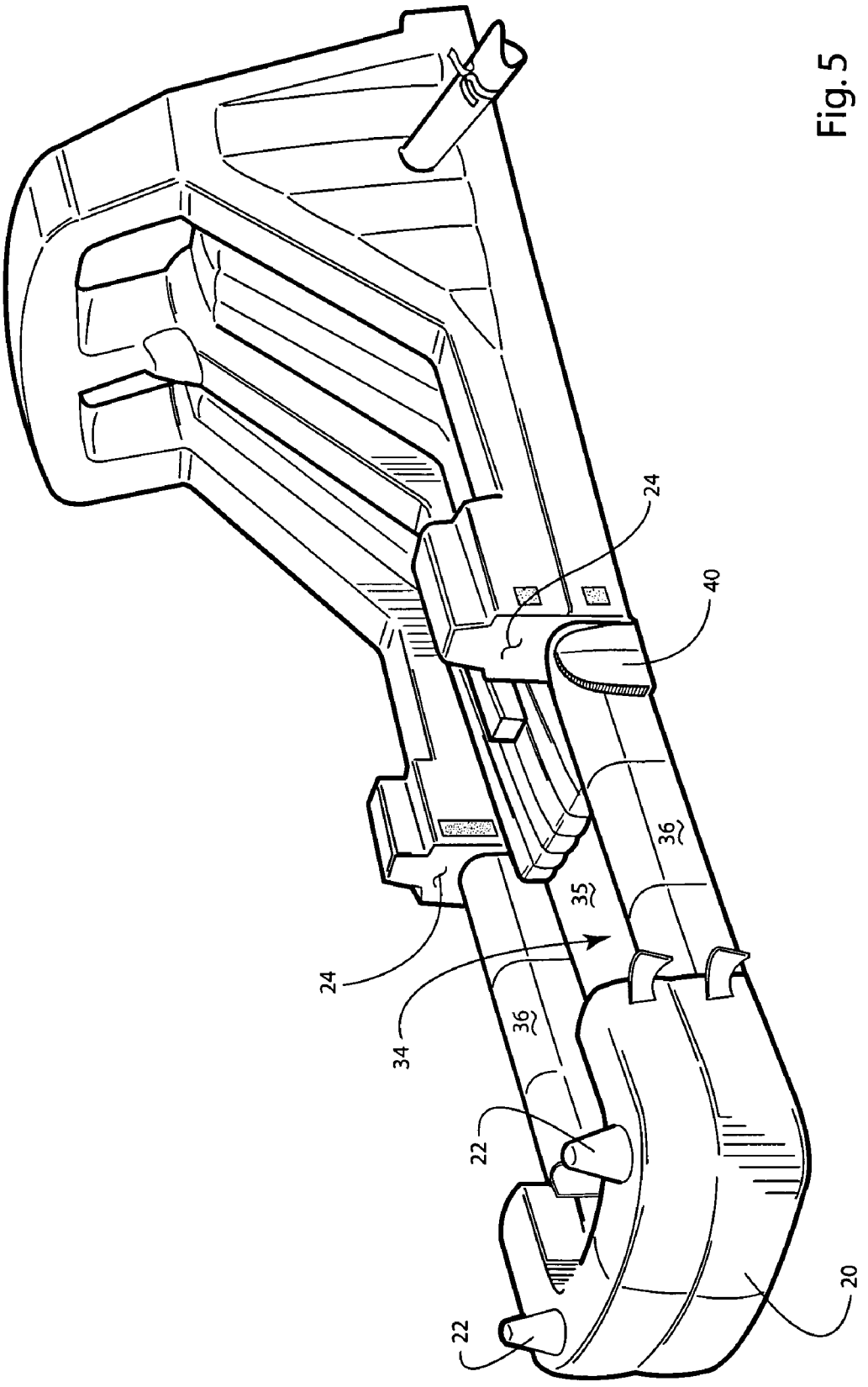


Fig. 5

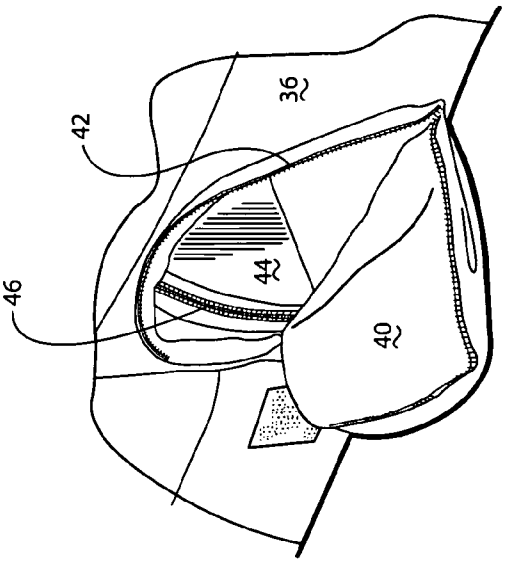


Fig. 7

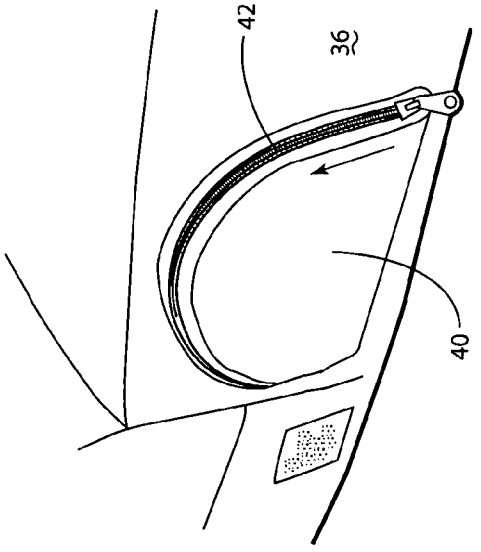


Fig. 6

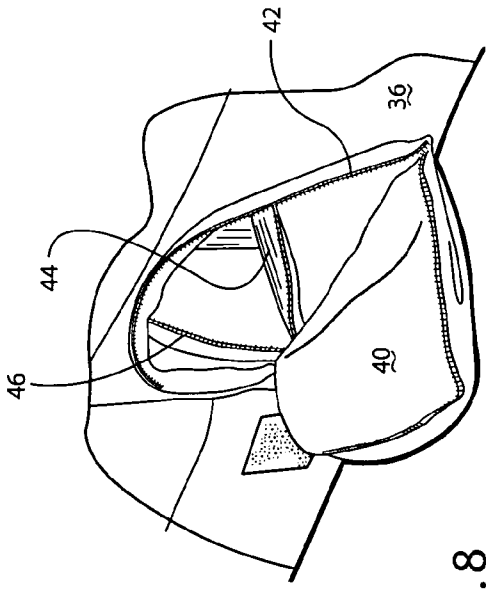


Fig. 8

INFLATABLE AND EXPANDABLE SLIDE AND POOL CONSTRUCTION

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This claims priority to U.S. provisional application Ser. No. 60/720,340 filed on Sep. 23, 2005, which is hereby incorporated by reference in its entirety into this application.

BACKGROUND OF THE INVENTION

[0002] Inflatable slides are an increasingly popular backyard or poolside recreational toy. The slide may be inflated either by filling the slide structure with air via an inflation valve and then closing the valve, or by a continuous airflow from an air blower. In the latter case, as is known, the outer material of the slide body is permeable and allows air to escape at a rate that will maintain the body in an inflated state as air is blown into the body. The slides typically include a ladder or other means to permit the user to climb to the top of the slide, and often include a device for spraying water onto the slide to facilitate sliding. However, known constructions for inflatable slides are fixed in the sense that they do not permit the user to selectively change the slide structure.

SUMMARY OF THE INVENTION

[0003] The instant invention permits the user of an inflatable slide to selectively change the structure of the slide by expanding it to include a pool or basin at the end of the slide. The pool portion may be releasably attached to the front end of the slide and may include inflatable sides and an inflatable end bumper. If the slide is a continuous airflow inflatable, the sides of the pool portion may be inflated by the air blower when the sides are released from their attachment to the end of the slide.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] The following description of the invention will be more fully understood with reference to the accompanying drawings in which:

[0005] FIG. **1** is a perspective view of an expandable inflatable slide according to the instant invention, prior to expansion.

[0006] FIG. **2** is a close-up view of the outside fasteners that detachably secure the end bumper of the slide to the sides of the slide.

[0007] FIG. **3** is a close-up view of the inside fasteners that detachably secure the end bumper to the sides of the slide.

[0008] FIG. **4** is a view of the end bumper after it has been detached from the sides of the slide and pulled a small distance away from the slide.

[0009] FIG. **5** is a perspective view of the slide structure after the end bumper has been fully pulled away from the slide and the extended legs have been inflated, in order to form a pool or basin at the end of the slide.

[0010] FIG. **6** is a close up view of one of the external flaps located on each of the two extendable legs of the pool.

[0011] FIG. **7** depicts the flap of FIG. **6** in open position so that the user of the slide may reach into the extendable leg to open or close the inner flap.

[0012] FIG. **8** is a close up view of one of the inner flaps located on each side of the slide structure at the end of the slide, with the inner flap being opened to allow air from the air blower to enter into the extendable legs of the pool to inflate them.

DETAILED DESCRIPTION OF THE INVENTION

[0013] FIG. **1** depicts an expandable inflatable slide construction **10** in accordance with the instant invention. In this particular embodiment two slide surfaces **14** are separated by a barrier **16** formed in the slide, but the slide may have a single sliding surface, or several, as desired. Sleeve **12** extends from side **18** of the slide to receive air from an air blower (not shown) to maintain the slide in an inflated state. Ties **13** permit the sleeve to be secured to the blower. For small slides, the slide may be constructed of impermeable material and inflated in the manner of a balloon—i.e., in conventional fashion, using a shut-off valve to close off the inflated body. For larger slides, however, it is recommended that the slide be made of air permeable material and that a continuous air blower be employed to keep the slide inflated, as in known in the field.

[0014] A U-shaped end bumper **20** is detachably secured to the front wall **24** of the slide, and provides cushioning when a person slides down the slide and reaches the bottom. End bumper **20** is preferably comprised of an inflatable bladder made of, for example, PVC, that may be sealed off by a valve (not shown); in other words, it is not a continuous airflow inflatable structure. The bladder is enclosed in a cover made of the same material as the sides of the slide, both for continuity of appearance and for protection of the bladder from puncture.

[0015] For decorative purposes, members **26** may be formed on each side of the slide and are inflated by the air blower as part of slide construction **10**. Extendable legs **36**, which will form the sides of the pool, as explained more fully below, are seen in collapsed condition; the legs **36** are secured to the slide front wall **24** and the distal portions **25** of end bumper **20** (FIGS. **2** and **3**). The collapsed legs **36** are held in place between end bumper **20** and slide front wall **24** as explained more fully below. Pool bottom **35** (FIG. **4**), which comprises a sheet of plastic material such as PVC, is also held in collapsed position adjacent slide front wall **24** (not shown here).

[0016] As seen in FIGS. **2** and **3**, end bumper **20** may be released from attachment to the slide by unfastening outside fasteners **30** and inside fasteners **32**. These fasteners may comprise conventional hook-and-loop materials, straps and buckles, or other devices, as desired. The end bumper **20** may then be pulled away from the front wall **24** of the slide as shown in FIG. **4**, thereby extending out pool bottom **35** and pool legs **36**. Handles **22** formed in end bumper **20** may facilitate the re-positioning of the end bumper **20**.

[0017] In FIG. **5**, end bumper **20** is seen in its outwardmost position with extendable legs **36** inflated and pool or basin **34** fully formed at the bottom of the slide

[0018] FIGS. **6-8** depict the procedure for effecting inflation of the extendable pool legs **36**. After end bumper **20** has been pulled substantially to its outermost position, external flap **40** on each leg may be opened via fasteners **42**, here

shown as zippers. The user may then reach inside and open internal flaps **44**, located at each of the ends **24** of the slide, via fasteners **46**, again shown as zippers. Air from the air blower may now flow out of the ends of the slide and into the extendable pool legs **36** to inflate them. The user then closes the external flaps **40** to prevent air from escaping from legs **36**.

[**0019**] The slide portion of the instant invention may be made from 420 denier polyester or 490 denier Nylon, with a PVC coating, and may be fabricated by well known die-cutting, sonic welding and/or sewing operations. Preferably, the sliding surfaces themselves have an external coating of PVC, while the remainder of the slide and the extendable legs has an internal PVC coating. The air blower unit may be a commercially available 380 watt or 580 watt, 110 volt blower.

What is claimed is:

1. An inflatable and expandable slide comprising a slide portion having a front wall at the bottom of the slide, a bumper member, a pair of extendable leg members each having a first and second end, the first ends being affixed to the bumper member and the second ends being releasably attached to the front wall of the slide portion, and a collapsible pool floor member attached to the leg members, the bumper member, and the front wall of the slide portion, whereby upon release of the leg members from attachment to the front wall of the slide portion, the leg members and the collapsible pool floor member may be extended away from the slide portion to form a pool or basin bounded by the leg members, the bumper member, and the lower end of the slide portion.

2. The slide of claim 1, wherein the leg members are inflatable.

3. The slide of claim 2, wherein the bumper member is inflatable.

4. The slide of claim 3, wherein the slide portion is constructed of air permeable material and further comprises a port for receipt of a continuous flow of air from an air blower to maintain the slide portion in inflated condition.

5. The slide of claim 4, wherein each leg member includes an opening adjacent the front wall of the slide portion through which opening air may enter the leg member from the slide portion so that the leg member may be inflated by the air blower when the leg member is released from attachment to the slide portion.

6. The slide of claim 5, wherein the front wall of the slide portion includes a pair of flaps corresponding with the openings in the leg members, which flaps may be opened to allow air to flow from the slide portion into the leg members to inflate the leg members.

7. The slide of claim 6, wherein each of the leg members includes a flap near the end adjacent the front wall of the slide portion, which flap may be opened to allow access to the flaps in the front wall of the slide portion.

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