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Brooks

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[54] **ONE-PIECE PLASTIC POOL**

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[52] **U.S. Cl.** **4/172**, 272/56.5

[51] **Int. Cl.** **E04h 3/16**, E04h 3/18

[58] **Field of Search** 4/172, 172.11, 172.19; 272/56.5

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Primary Examiner—Henry K. Artis

[57] **ABSTRACT**

A one-piece plastic pool having a slide for enabling a child to descend to the bottom of the pool. Means is provided integral with the pool for enabling a child positioned on the bottom of the pool to position himself at the top of the slide without leaving the pool.

4 Claims, 7 Drawing Figures

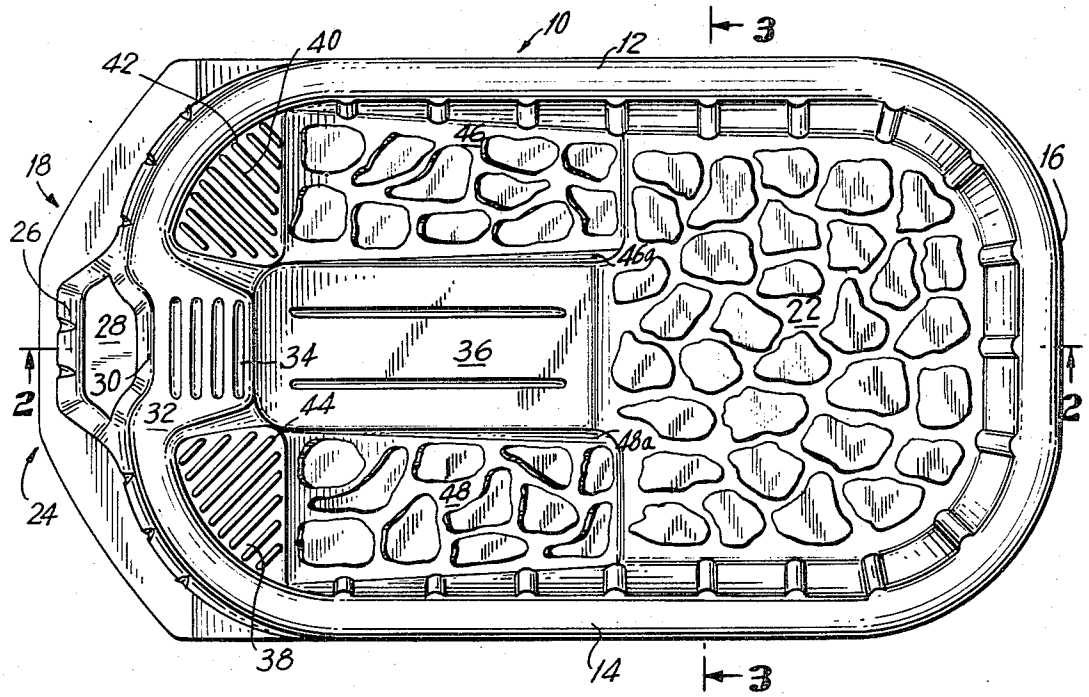


FIG. 1

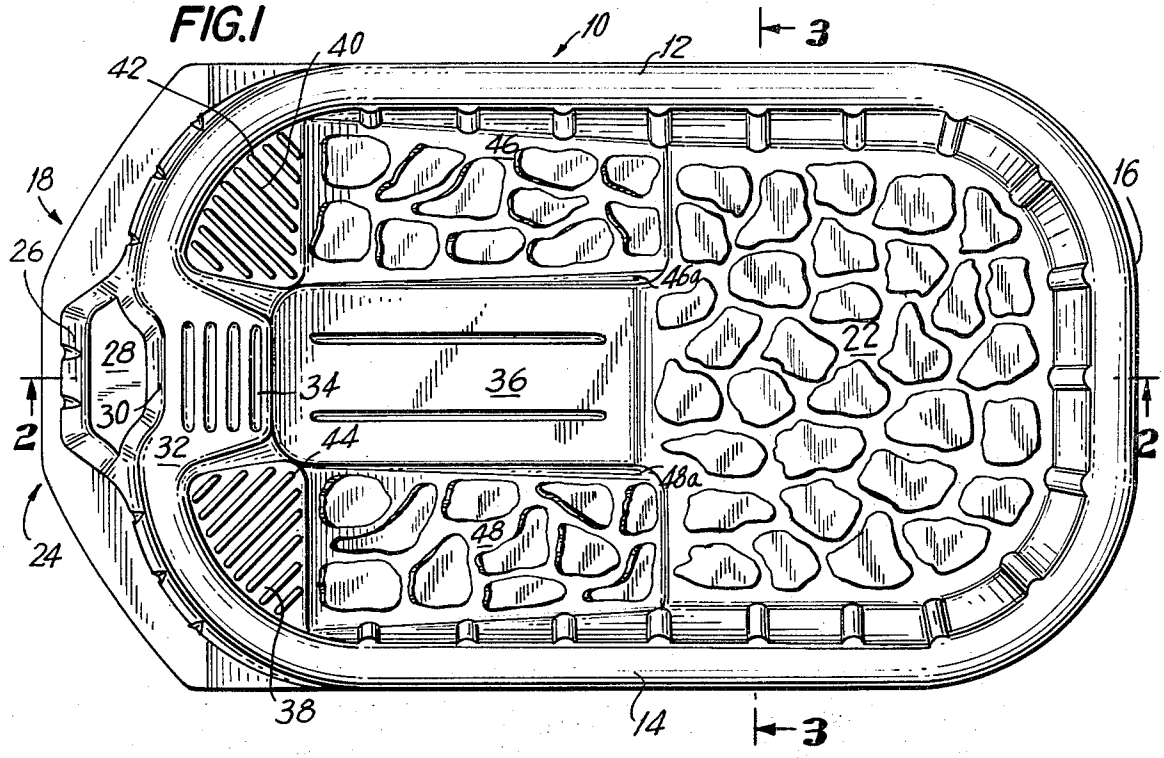


FIG. 2

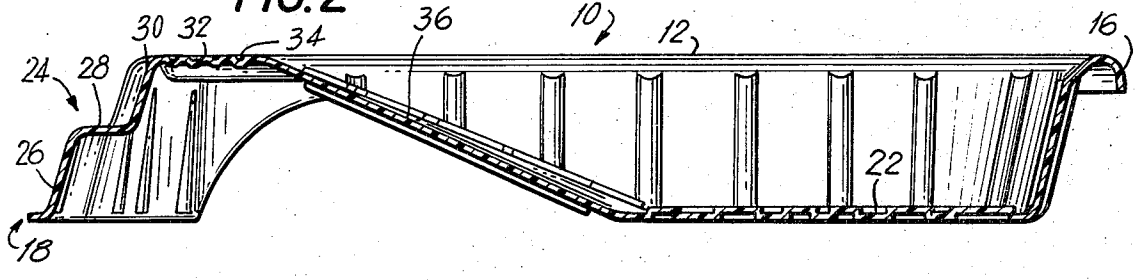


FIG. 3

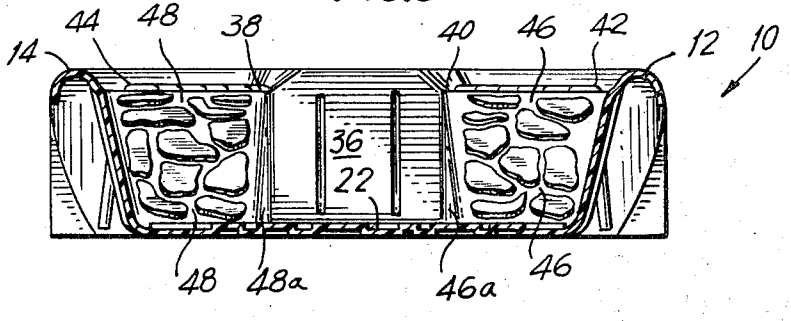


FIG. 4

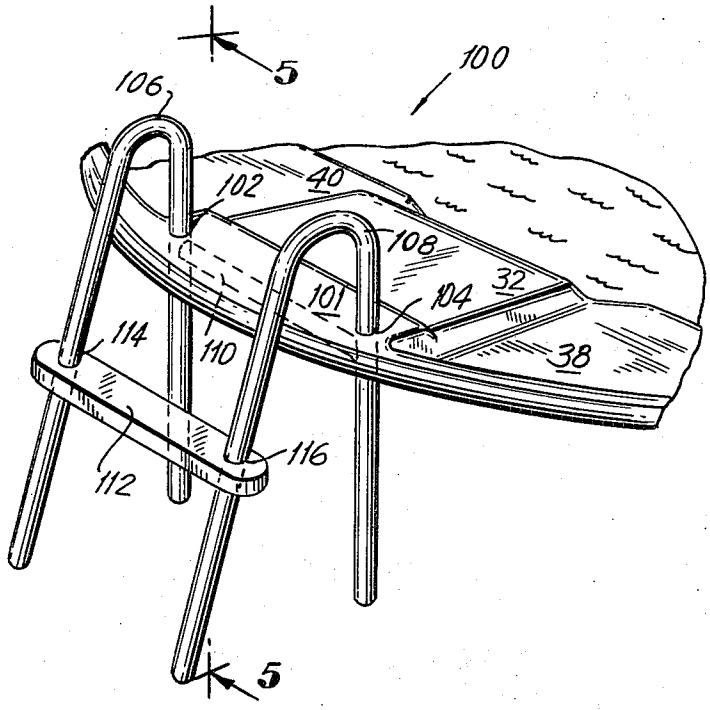


FIG. 5

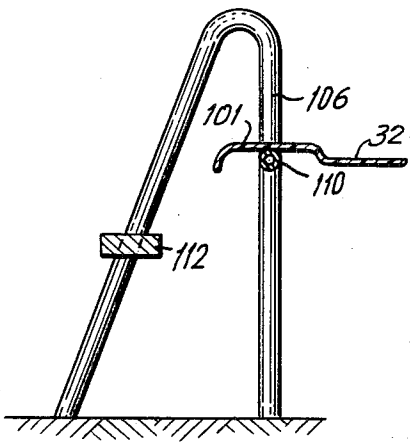
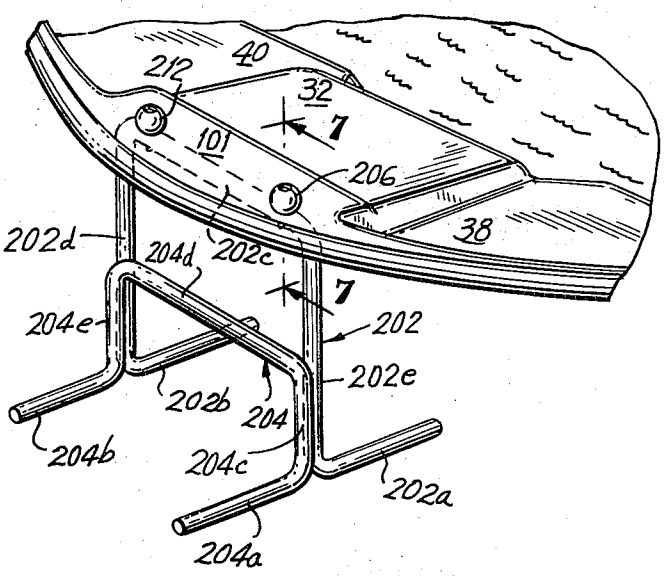


FIG. 6



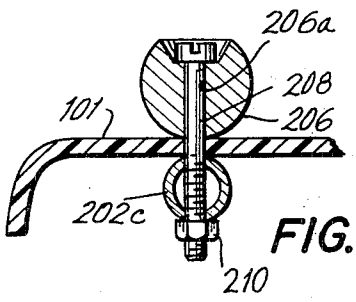


FIG. 7

ONE-PIECE PLASTIC POOL

BACKGROUND OF THE INVENTION

1. Field of the Invention

One-piece pool having a slide for enabling a child to safely slide into the water contained in said pool.

2. Description of the Prior Art

With the recent advances in thermoforming technology many toy manufacturers have placed on the market small, e.g. 6 feet or less in cross section, one-piece plastic wading pools. Originally these pools were designed solely to enable a child to climb into the interior thereof and enjoy the water contained therein. Usually the walls of the pool were approximately 1 foot in height enabling older children to enter and leave the pool with a minimum of difficulty. Pools such as these have encountered extremely widespread popularity as many homeowners keep a pool of this type in their backyard for their children to enjoy. Additionally, many apartment dwellers whose apartments have balconies have placed a pool of the type hereinbefore described on their balcony to enable their children to enloy the same.

Recently a pool was introduced on the market of the type hereinbefore described which includes a slide for enabling a child to slide into the body of water contained in said pool. Specifically, the pool includes a horizontal entrance way leading to the slide with the sides of the entrance way and slide being spaced from the side walls of the pool.

The aforesaid pool was provided with a ladder for enabling a child to position himself on the entrance way leading to the slide prior to utilizing the slide to descend into the pool. The prior art pool utilizing a slide as hereinbefore described had several drawbacks which made it undesirable in certain respects. One of the drawbacks of said pool was that there was a sharp drop from the edges of the slide to the bottom of the pool. This was undesirable since a child utilizing the pool and sliding on the slide could fall over the edge thereof and drop to the bottom of the pool. A further drawback of the aforesaid prior art pool utilizing a slide was that after a child had descended the slide to the bottom of the pool it was necessary to climb over a side of the pool to then make use of the ladder to repeat the cycle. While this did not present any difficulties with older children, it was frequently difficult for younger children in that they were unable to easily climb over a side of the pool.

SUMMARY OF THE INVENTION

Purposes of the Invention

It is, therefore, an object of the present invention to provide an improved one piece plastic pool having a slide.

Still a further object of the present invention is to provide an improved one piece plastic pool having a slide for enabling a child to slide into water contained in the pool with means being provided for preventing a child from falling off the edges of the slide.

Another object of the present invention is to provide an improved one piece plastic wading ppol having a slide for enabling a child to descend into water contained in said pool with means being provided for enabling a child after having used the slide to reuse the same without having to climb over a side of the pool.

Yet a further object of the present invention is to provide an improved one piece plastic pool having a slide that can be manufactured by high speed thermoforming techniques.

BRIEF DESCRIPTION OF THE INVENTION

In accordance with the present invention, the foregoing and other objects are achieved by a one piece unitary structure plastic pool having an entrance way which extends horizontally and laterally inwardly from a portion of the periphery of said pool. A slide descends downwardly from the edge of the entrance way furthest from the periphery of said pool to the bottom of said pool. Ramps flank said slide at opposed edges thereof and extend to the bottom of the pool. The ramps are slightly elevated with respect to said slide with a wall extending between the opposed declining edges of the slide and the respective adjacent edges of the ramps. Thus it can be seen that the slide is recessed relative to the ramps and flanked by said ramps. Decorations are embossed on the ramps and serve a purpose that will soon be apparent. Formed in the pool at the front thereof is a step structure which is arranged to enable a child to ascend from the ground directly on to the entrance way. Flanking the entrance way and substantially coplanar therewith at the uppermost portion of each of the ramps are horizontal platforms.

In utilizing the pool of the present invention a child ascends the step structure of the pool and positions himself on the entrance way. The child then slides into the pool via the slide with the ramps preventing the child from falling off the side of the slide and possibly injuring and/or scaring himself. After the child has reached the bottom of the pool via the slide he can then crawl up either one of the ramps to a platform prior to moving to the entrance way and again sliding into the pool. The embossed decorations on the ramps enable the child to ascend said ramps without sliding down the same.

In another embodiment of the present invention a ladder is provided which is not integral with the pool structure.

Other objects of the invention will be pointed out hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the pools hereinafter described and of which the scope of application will be indicated in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings wherein like parts in the different figures are identified by the same reference numeral:

FIG. 1 is a top plan view of a pool according to the present invention;

FIG. 2 is a sectional view taken substantially along the line 2—2 of FIG. 1;

FIG. 3 is a sectional view taken substantially along the line 3—3 of FIG. 1;

FIG. 4 is a perspective view showing the ladder structure of an alternate embodiment of the present invention;

FIG. 5 is a sectional view taken substantially along the line 5—5 of FIG. 4;

FIG. 6 is a perspective view of the ladder structure of an alternate embodiment of the present invention; and

FIG. 7 is a sectional view taken substantially along the line 7—7 of FIG. 6.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In FIG. 1 of the drawings a pool **10** according to the present invention is shown with said pool being generally oblong in configuration. All portions of the pool are integral with each other. The pool is made from plastic and, preferably, by any of the conventional thermoforming techniques that are presently available to the skilled mechanic. Pool **10** includes elevated sides **12** and **14** which are parallel and in registry with each other. An end **16** spans registered portions of sides **12** and **14** with the mid-portion of end **16** being perpendicular to each of said sides. Front portion **18** of the pool **16** spans the portions of sides **12** and **14** furthest from end **16** and extends for the height of the pool. The entire periphery of pool **10** (sides **12** and **14**, and **16** and front **18**) has a slight draft as is conventional.

Pool **10** includes a flat bottom **22** which extends from the approximate mid-point of sides **12** and **14** to end **16**.

The upper portions of sides **12** and **14** as well as end **16** are turned over to form a flange which depends a short distance downwardly from the upper portion of each of the aforementioned parts. The turned over portion of front **18** extends downwardly and outwardly to ground level for a reason soon to be apparent.

A step structure **24** is located on pool front **18** and is symmetrically positioned with respect to sides **12** and **14**. Step structure **24** includes a substantially vertical, slightly inclined, wall **26** which extends upwardly from the bottom of front **18**. Extending inwardly from the upper portion of wall **26** is a horizontal step **28**. Step **28** extends inwardly past a portion of front **18**. Extending upwardly from step **28** is a wall **30** which is parallel to wall **26**. The portion of pool front **18** which does not define step structure **24** adjacent said structure is smoothly blended into the walls **26** and **30** and step **28** so as to provide an attractive appearing pool.

An outwardly projecting lip is on the bottom of front **18** as can be seen in FIG. **2**.

Projecting inwardly from the upper portion of wall **30** and at the same elevation as the uppermost portion of the front and sides of pool **10** is a horizontal entrance way **32**. Entrance way **32** is symmetrically located with respect to sides **12** and **14**. Ribs **34** extend transversely across entrance way **32** and are perpendicular to sides **12** and **14** and parallel to end **16**. Ribs **34** serve a twin-fold purpose; namely, to increase the strength of entrance way **32** and to minimize the chances of a child slipping thereon.

Extending downwardly and away from entrance way **32** is a slide **36** which leads to pool bottom **22**. Preferably the inclination of slide **36** is selected so that a child can slide thereon into the bottom of the pool at a safe velocity. Flanking entrance way **32** at a slightly lower elevation are identically configured horizontal platforms **38** and **40**. As can be seen in the drawings, platforms **38** and **40** extend slightly past entrance way **32**. A plurality of inclined parallel ribs **42** are located on platform **40**. Ribs **42** make an included acute angle if extended with side **14**. In a similar fashion a plurality of inclined parallel ribs **44** are located on platform **38** and would define, if extended, an included acute angle with respect to side **12**.

Extending downwardly to pool bottom **22** from platform **40** is an inclined ramp **46** which extends inwardly from side **12**.

A ramp **48**, which projects inwardly from side **14**, extends from platform **38** to pool bottom **22** and is identically shaped and configured as ramp **46**. The bottommost extremities of ramps **46** and **48** are closer to end **16** of pool **10** than is the bottommost portion of slide **36**. Slide **36** is flanked between ramps **46** and **48** and is slightly lower than said ramps with walls **46***a* and **48***a* extending from the portions of ramps **46** and **48** closest to slide **36** to the longitudinal edges of said slide. As can be seen in the figures, the slope of slide **36** is slightly greater than the slope of ramps **46** and **48**.

A raised flagstone pattern is located on pool bottom **22** as well as on ramps **46** and **48**.

Vertical ribs extend from the upper portion of end **16** of pool **10** to the bottom of said pool and add rigidity to the pool. Additionally, vertical ribs extend from the upper portion of sides **12** and **14** of said pool to the bottom of the pool for those portions of said sides extending upwardly from the pool bottom. Vertical ribs extend from the upper portion of sides **12** and **14** which are adjacent ramps **46** and **48**, respectively, to said ramps, with it being appreciated that going from the portion of said ramps closest to end **16** to the front of said pool said ribs decrease in height. Vertical ribs are located on front **18** and on vertical wall **26**.

In utilizing the pool of the present invention said pool is filled with water. The amount of water that is added to the pool can be selected in accordance with the age and size of the child utilizing the same and can be varied as will be appreciated by those having skill in the art. After the pool has been filled with water it is ready for use. Normal use of the pool would consist of a child climbing up the step at the front of the pool, positioning himself on entrance way **32** and descending slide **36** into the bottom of the pool and the water contained therein. Ramps **46** and **48** prevent the child from falling off the sides of slide **36** to the bottom of the pool and thus constitute a safety feature. In addition, it should be noted that when the child has finished his descent on slide **36** it is not necessary for him to climb out of the pool to ascend to entrance way **32**. The child can ascend either of ramps **46** or **48** and via either platform **40** or **38** move to entrance way **32** so as to be in a position for making further use of slide **36**. It should be noted that it is relatively easy for a child to ascend ramps **46** and **48** since a flagstone pattern is embossed thereon.

The ribs on platforms **38** and **40**, aside from adding rigidity to the pool, provide excellent friction surfaces and, hence, minimize th chances of a child slipping on said platforms prior to moving to entrance way **32**. In a similar fashion, the ribs on entrance way **32** provide an excellent friction surface to prevent a child from unintentionally sliding off said entrance way. If a child should accidentally fall off the sides of entrance way **32** he will descend onto platforms **38** and **40** which are immediately adjacent and slightly below said entrance way so that there will be no sharp descent as a result of which the child can injure himself.

The flagstone on bottom **22** assists in preventing unwanted falls. The turned over pool front besides providing a step structure assists in preventing the pool from tipping.

In FIG. 4 of the drawings a further embodiment disclosing pool 100 of the present invention is shown, and said embodiment is identical to the embodiment disclosed in connection with FIG. 1 except as hereinafter described. It is noted that the ribbing shown in FIGS. 1 through 3 is not shown in FIG. 4 nor is the raised flagstone pattern of FIGS. 1 through 3 shown in FIG. 4. It is, of course, to be appreciated that the ribbing and raised flagstone pattern could be used in the embodiment of the invention shown in FIG. 4 if desired. The front of pool 100 does not include a turned down flange extending to ground level having a step. The flange at the upper portion of the sides of the pool extends around the front thereof at a constant elevation above the ground. Extending inwardly from the flange at the pool front is a narrow ladder securing means 101 which is slightly above entrance way 32 and leads to the same. Ladder securing means 101 is the same width as entrance way 32 and is flanked by ramps 38 and 40. Extending through the means 101 at the front of pool 100 are spaced-apart holes 102 and 104. Inverted U-shaped ladder supports 106 and 108 are provided with one leg of each of said ladder supports extending through a different one of holes 102 and 104.

A cross-rod 110 is provided and is positioned immediately beneath the portion of pool 100 forming holes 102 and 104 which rests thereon to prevent the pool from tipping. Rod 110 is connected to registered portions of the legs of ladder supports 106 and 108 immediately beneath ladder securing means 101 at the front of pool 100. The means of fastening cross-rod 110 to the respective legs of ladder supports 106 and 108 can be conventional.

It should be noted that whatever means is utilized to connect said cross-rod to ladder supports 106 and 108 the connection should be rigid and ensure that cross-rod 110 is immediately beneath means 101 to support the same. A step 112 is provided and includes two holes 114 and 116. The remaining leg of ladder support 108 extends through hole 116 and the remaining leg of ladder support 106 extends through hole 114. Conventional means is provided for preventing step 112 from moving relative to ladder supports 106 and 108 and for securing the step in a position to enable a child to ascend to entrance way 32.

The manner of utilizing the pool disclosed in FIGS. 4 and 5 is the same as that disclosed in FIG. 1 except that the ladder structure is not integral with the pool and for a child to initially ascend to entrance way 32 said child must climb step 112.

In the embodiment of the invention shown in FIGS. 6 and 7 the pool structure per se is the same as that shown in FIG. 4 with the only change being in the ladder structure for enabling a child to ascend to entrance way 32. The structure which forms the ladder for the pool shown in FIG. 6 consists of metal bar sections 202 and 204 which can be hollow if desired. Metal bar section 202 includes parallel ground level supports 202*a* and 202*b* which are in registry with each other and of the same length. Ground level support 202*a* includes a free end and extending upwardly from the other end thereof is a vertical support 202*e* that extends to a pool support 202*c* which is positioned immediately beneath ladder securing means 101. Ladder securing means 101 rests thereon to prevent the pool from tipping. It is to be appreciated that vertical support 202*e* and ground level support 202*a* are perpendicular and in the same plane. Pool support 202*c* is perpendicular to vertical support 202*e* and is coplanar therewith. An additional vertical support 202*d* extends upwardly from ground level support 202*b* to pool support 202*c* and is perpendicular thereto and coplanar therewith.

Vertical supports 202*d* and 202*e* are the same height, parallel to each other while being in registry with each other. A pair of holes extend through ladder securing means 101. In a similar fashion a pair of holes extend vertically through pool support 202*c* with the holes in said pool support being in registyr with the holes in ladder securing means 101.

Metal bar section 204 consists of two ground level supports 204*a* and 204*b*, respectively, which are parallel to each other, the same length and in registry with each other. Ground level support 204*a* is in alignment with ground level support 202*a* whereas ground level support 204*b* is in alignment with ground level support 202*b*. Ground level support 204*a* includes a free end and extending upwardly from the other end thereof is a vertical support 204*c*. Vertical support 204*c* is approximately one half the height of vertical support 202*e* and is parallel thereto and in contact therewith. Means is provided for securing vertical supports 204*c* and 202*e* to each other and said means can be conventional.

It is noted that ground level supports 204*a* and 202*a* and vertical supports 202*e* and 204*c* are coplanar.

Extending perpendicularly away from the uppermost portion of vertical support 204*c* is a step bar 204*d* which extends to the upper portion of a second vertical support 204*e*. Vertical support 204*e* extends upwardly from the non-free end of ground support 204*b* and is the same height as vertical support 204*c*. Vertical support 204*e* is in contact with vertical support 202*d* and secured thereto by any conventional securing means. It is to be appreciated that while metal bar sections 202 and 204 are shown as each being of unitary construction that this is optional and is only a preferred method of construction. Ground level supports 204*b* and 202*b* and vertical supports 204*e* and 202*d* are all coplanar.

A spherical gripping knob 206 which includes a central vertical opening 206*a* having an enlarged recessed upper portion is positioned so that said opening is over one of the holes in means 101. A threaded bolt 208 is positioned so that its head is received in the recessed upper portion of knob 206 and its shank extends through opening 206*a* and through one of the openings in ladder securing means 101 and one of the openings in pool support 202*c*. A nut 210 is in threaded engagement with the bottom portion of the shaft of bolt 208 and is tightened so that knob 206 and pool support 202*c* press against the opposed surfaces of ladder securing means 101. Knob 212, identical to knob 206, includes identical supporting structure for also securing support 202*c* to ladder securing means 101.

In ascending the pool shown in FIG. 6 a child places a foot on step 204*d* and grips knob 206 and 212. The child then boosts himself onto entrance way 32 and utilizes the pool as described in the fist embodiment of the invention. It is to be appreciated that in utilizing the pool of FIG. 6 that once the child has ascended to entrance way 32 that it is not necessary for the child after having utilized the slide to climb out of the pool to again utilize said slide. The reason for this is that the child can use the ramps to position himself at entrance way 32 prior to descending slide 36.

It thus will be seen that there is provided a one-piece plastic pool which achieves the various objects of the invention and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein described or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

I claim:

1. A recreational article comprising a one-piece unitary pool structure including a front, a bottom, first and second opposed sides, an end spanning said sides and a front extending between said sides and spaced from said end, a slide for enabling a child to descend to said bottom, said slide being spaced between said first and second sides and having longitudinally opposed first and second edges, a first elevating means extending between the first edge of said slide and the first side, a second elevating means extending between said second edge of said slide and said second side, said first and second elevating means extending from the pool bottom to positions adjacent the uppermost portion of said slide.

2. An article according to claim **1** wherein said first and second elevating means are identical to each other.

3. An article according to claim **1** further including a substantially horizontal entrance way extending inwardly from said front to said slide, a first platform positioned adjacent the uppermost portion of said first elevating means and adjacent one portion of said entrance way to provide a means of egress from the uppermost portion of said first elevating means to said entrance way.

4. An article according to claim **1** wherein said first and second elevating means are raised relative to said slide.

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