July 13, 1965 J. J. MASHURA 3,193,847

COLLAPSIBLE SWIMMING POOL

Filed Dec. 31, 1962

FIG. 1

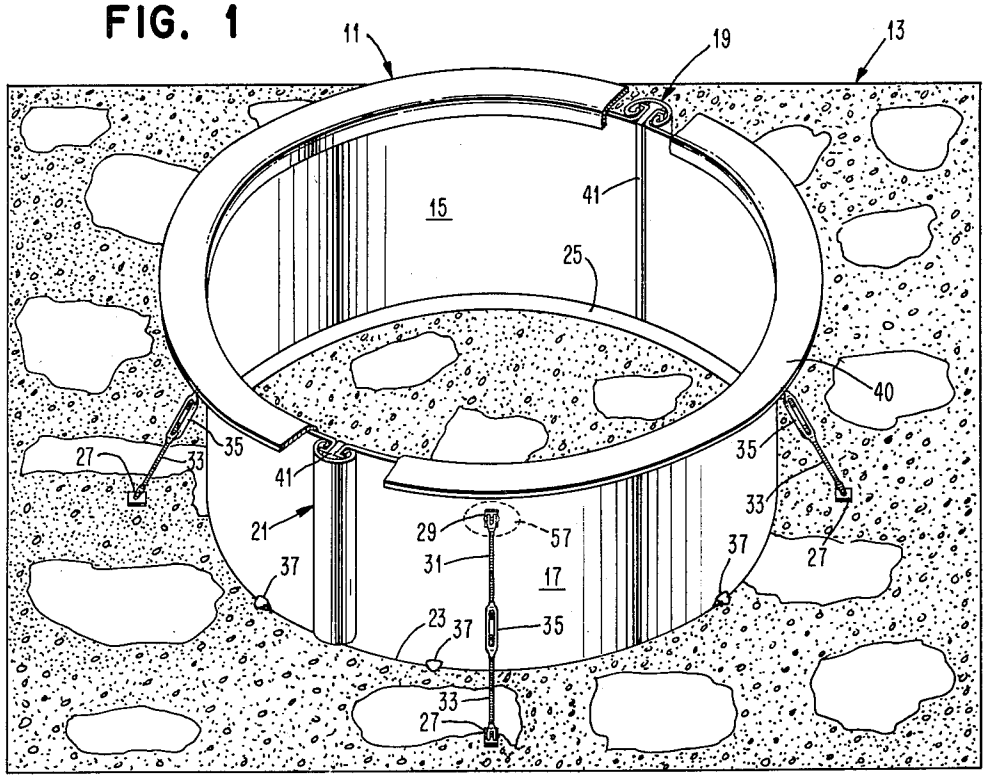
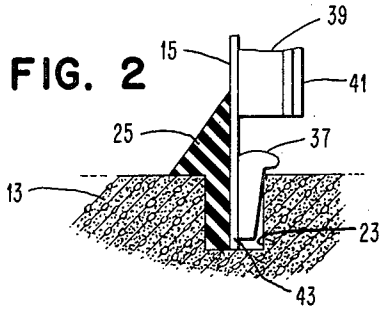


FIG. 2



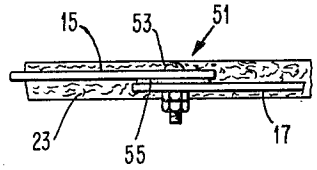


FIG. 4

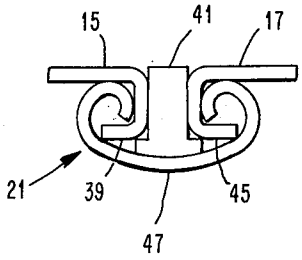


FIG. 3

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COLLAPSIBLE SWIMMING POOL

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This invention relates to swimming pools and more particularly to a collapsible swimming pool.

It has become increasingly popular to have collapsible "backyard" swimming pools for individual houses and for individual families. Such collapsible family swimming pools usually consist of a rubber, or plastic, basic water retaining device, which is supported by a cylindrical structure of some rigid material such as steel. This type of collapsible swimming pool is normally placed on top of a sand base in order that the bottom of the pool (which as mentioned earlier is made of plastic or rubber) does not tear, split or become punctured when bathers walk thereon while using the pool. The mounting of such plastic or rubber pools of the cylindrical metal support as well as on top of the base of sand requires a great deal of manual effort and hence the user is not prone to readily set-up and take-down such a device. However, it has been found that if the pool could be readily disassembled to occasionally accommodate some other use of the property, it would be desirable. Further the requisite of the sand base usually causes a certain part of the property, upon which the pool is placed (and after it has been removed), to become a poor piece of soil with regards to growing plants thereon, such as grass, shrubs, etc. It follows that the elimination of the sand base would also be highly desirable. Further if the user of the prior art collapsible pools wanted to keep the pool set up during the entire year, it has been that such pool liners as rubber, vinyl, etc. cannot withstand changing temperatures as from the hot temperatures of summer to the cold temperatures of winter.

Accordingly it is an object of the present invention to provide an improved collapsible swimming pool.

It is a further object of the present invention to provide a swimming pool which can be readily assembled and disassembled.

It is a further object of the present invention to provide a swimming pool which requires relatively little manual effort to assemble and disassemble it.

It is a further object of the present invention to provide a swimming pool whose assembly requirements do not cause the property, upon which it is set up, to be rendered less accommodating to desirable plant growth when the pool is disassembled.

In accordance with features of the present invention a groove (which is the shape of the pool) is cut into a flat slab such as a patio type structure base. A rigid vertical wall structure is then partially inserted into said groove and sealed therein with a suitable water sealing means.

In accordance with another feature of the present invention a plurality of anchoring means are secured to the patio-structure around the outside of the groove and a plurality of tie rod structures are secured to the outside of said rigid structure to be fastened to said plurality of anchoring means to provide support for said rigid structure.

In accordance with another feature of the present invention the rigid means can be divided into a plurality of sections which can be easily assembled into a continuous rigid structure to form the pool wall and readily disassembled for easy storage.

The foregoing and other objects and features of this invention will be best understood by reference to the following description of an embodiment of the invention

taken in conjunction with the accompanying drawings, wherein:

FIGURE 1 is a pictorial schematic of the pool structure.

FIGURE 2 is an enlarged schematic cross sectional view showing a sealed wall in a groove;

FIGURE 3 is an enlarged top view of joint between two side pieces of the pool.

FIGURE 4 is an enlarged top view of a second type joint between two side pieces of the pool.

Referring particularly to FIGURE 1 there can be seen a pool **11** which is situated on a patio type structure **13**. The pool **11** is shown being made up of two halves **15** and **17** which are joined together at two joints **19** and **21**. The joints **19** and **21** are formed on the outside of the pool wall in FIGURE 1. It should be understood that the pool could be made of many sections or of a single piece. It has been found that a pool made of four sections can be easily assembled since the sections are not large and can be easily stored which is a very important and desirable advantage. The joints **19** and **21** are of the type shown in FIGURE 3 (which will be discussed hereinafter), but it should be understood that many other forms of sealing joints could be used such as that shown in FIGURE 4.

Inside of the pool **11**, in FIGURE 1, the base is depicted as the patio structure **13**. It should be understood that other types of bases could be used such as a cement slab or fiber glass, etc. The wall halves **15** and **17** are inserted or fitted into a groove **23** which is cut into the patio structure **13**. The groove can be better appreciated in FIGURE **2** which will be discussed below. The wall halves **15** and **17** are placed in the groove **23** with a water sealing means **25** (only a portion of which is shown in FIGURE 1) of some suitable type in order to retain the water within the pool. Many water sealing workable compounds are known, examples of which are rubber, oakum and the like. At the locations where the side pieces, such as wall halves **15** and **17**, are joined the lips of the side pieces are not cut completely to the bottom in order to leave a sufficiently large edge to be inserted in the groove. This will be better understood when FIGURE 2 is considered.

Around the outside of the groove **23** there is located a plurality of anchor lugs **27**. Fastened to the outside of the wall halves **15** and **17** is a plurality of rods **31** which can be angularly bolted to the wall, or in the alternative some swivel type rod can be secured to the wall. Fastened to the wall halves **15** and **17** are rods **31**, while rods **33** are fastened to the anchor lugs **27**. The rods **31** and **33** are paired together for each support position around the pool and are tightened, or drawn together, by associated turnbuckles **35**. In the center of the pool **11** there is shown a drain **57** which can be installed beneath the patio or cement slab to facilitate draining the pool. In the alternative the pool can be filled and/or emptied with a hose means.

In view of the above description it can be readily appreciated that the pool **11** can be easily assembled by the steps of (1) setting up the wall halves **15** and **17** in the groove **23**; (2) forming or locking the joints **19** and **21**; (3) inserting the seal **25** into the groove **23** against the wall halves **15** and **17** inside the pool; (4) inserting the wedge **37** (FIGURE 2); and fastening the rods **31** and **33** by the turnbuckles **35**. The ledge piece **40** can then be slipped over the upper edge of the pool **11** to complete the assembly.

Referring to FIGURE 2 a section of the wall half **15** is shown in the groove **23**. It can be seen from FIGURE 2 that the seal **25** is inserted on the water side of the groove **23** and forced to form a tight seal by the insertion of the wedge **37**. The wedge **37** is placed around the

entire groove **23** as is the seal **25**. In another mode wherein the joint shown in FIGURE 4 is employed oakum is inserted into both sides of the groove **23**.

Further in FIGURE 2 there is shown a section of the joint lip **39** and the joint seal **41**. It will be noted in FIGURE 2 that the lip **39** is not formed completely to the bottom edge of wall half **15**. In other words the lower edge **43** of wall **15** is not formed into a joint lip in order that it might be inserted into groove **23**. It should be further noted in FIGURE 2 that the seal **25** overlaps the joint seal **41** so that even though the joinder of the two wall halves **15** and **17** is not sealed completely by the seal **41**, the overlapping of seal **25** insures a water tight arrangement.

FIGURE 3 shows a plan view of a joint. A spring device **47**, which can be made of a coiled steel, or some other suitable rigid clipping means or spring means, is forced into the grooves of the joint lips **39** and **45**. The spring device **47** causes the walled halves **15** and **17** to be drawn tightly together against the seal **41** and at the same time forces the cross-bar section of the seal **41** against the right angles of the joint lips **39** and **45**, to provide a further seal for the joint. Many other means for water sealing the point where two wall sections are joined can be employed for instance consider FIGURE 4.

FIGURE 4 shows an overlap joint **51** located in groove **23**. The two pool halves **15** and **17** are bolted together by bolts **53** only one of which is depicted in FIGURE 4. Between the wall halves **15** and **17** at the joint **51** there is placed a gasket **55** which can be made of rubber, cork or the like. Inserted in the groove **23** is oakum as a water sealant.

While I have described above the principles of my invention in connection with specific apparatus, it is to be clearly understood that this description is made only by way of example and not as a limitation to the scope of my invention as set forth in the objects thereof and in the accompanying claims.

What is claimed is:

1. A swimming pool comprising:

(a) a base member having an endless groove therein, said groove having sides and being formed to provide the shape of said swimming pool;

(b) a removable wall member fitting into said groove;

(c) sealant means disposed in said groove between the sides thereof and said removable wall member to render the groove water tight;

(d) a plurality of anchor members disposed in said base member and around the outside of the perimeter of said groove;

(e) a plurality of support members connected between said wall member and associated anchor members to hold said wall member rigid thereby providing a wall for said swimming pool;

(f) wedge means inserted in said groove to force said wall member against said sealant to further aid in making said pool water tight.

2. A swimming pool comprising:

(a) a base member having an endless groove therein, said groove having first and second sides and being formed to provide the shape of said swimming pool;

(b) a plurality of removable wall sections which are fitted together to form a wall for said pool, said wall sections fitted into said groove;

(c) a plurality of anchor members disposed in said base member but lying outside the perimeter of said groove;

(d) a plurality of support members connected between said wall sections and associated anchor member to hold said wall sections rigid thereby providing a side wall for said swimming pool;

(e) sealant means disposed in said groove between said first side thereof and said wall sections located therein;

(f) wedge means inserted in said groove between said second side thereof and said wall sections inserted therein to aid in making said pool water tight.

3. A swimming pool according to claim **2** wherein each of said wall sections is joined to its adjacent wall section by overlapping the ends thereof and locating bolts through said overlapped portions to secure the wall sections together.

4. A swimming pool according to claim **2** wherein there is further included a plurality of sleeve members and wherein each of said wall sections is formed to provide a protruding portion at each end thereof which protruding portions are disposed at approximately right angles to said wall sections, each of said wall sections being joined to its adjacent wall section by locking one of said sleeve members over a pair of said protruding portions which respectively belong to adjacent wall sections.

5. A swimming pool according to claim **2** wherein there is further included a draining means located in said base member and opening into the inside of said pool.

References Cited by the Examiner

UNITED STATES PATENTS

817,314	4/06	Hahn.	
1,427,166	8/22	Parton.	
1,786,613	12/30	Hooper	4—177
1,963,405	6/34	Eichelman et al.	
2,363,429	11/44	Lowry	50—203
2,784,675	3/57	Farrell	220—5
3,020,560	2/62	Bedick.	

FOREIGN PATENTS

801,950	9/58	Great Britain.

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