Dec. 30, 1969 R. M. LAVACK 3,486,289

METHOD FOR ERECTING SWIMMING POOLS

Filed Aug. 2, 1967

FIG. 1

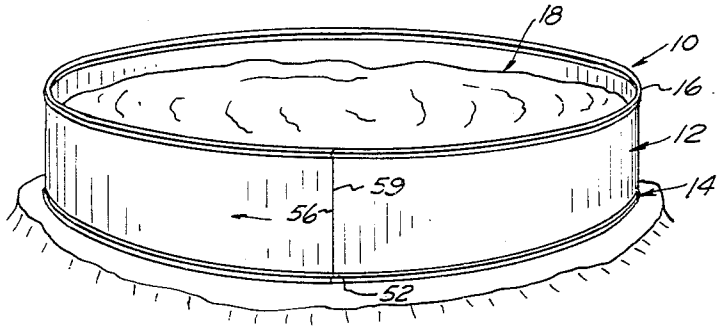


FIG. 2

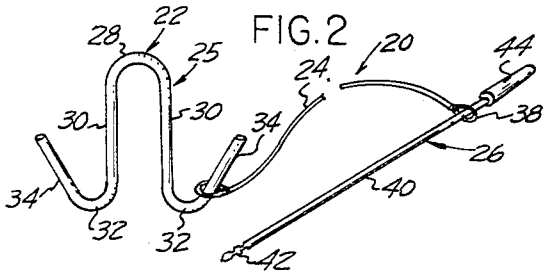


FIG. 3

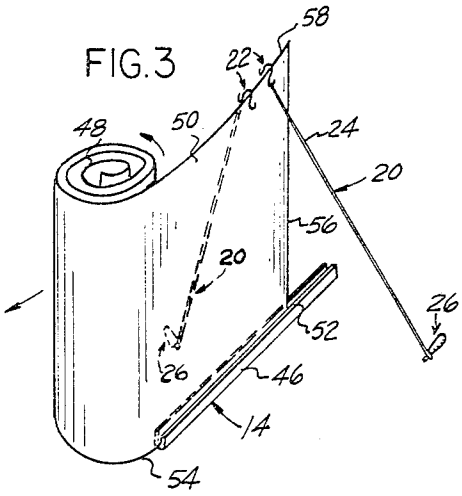


FIG. 4

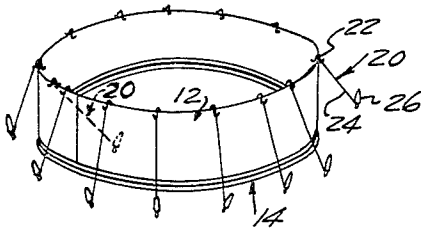
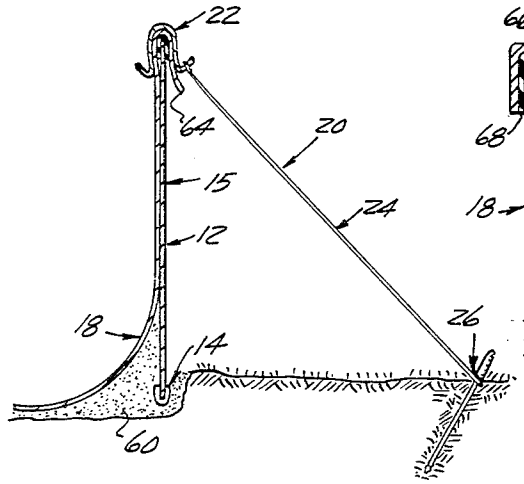


FIG. 5



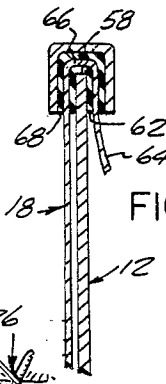


FIG. 6

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METHOD FOR ERECTING SWIMMING POOLS

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ABSTRACT OF THE DISCLOSURE

The coiled sheet metal side wall for a disassembled above-ground swimming pool is erected rapidly by a single operator who guys the top edge of the side wall sheet metal to the ground by applying braces consisting of clip hooks, guy ropes and stakes driven into the ground at intervals as he unrolls the coiled sheet metal side wall and inserts its lower edge in the slot in the conventional sectional channel bottom rail. This prevents the side wall from collapsing inward during erection, as it otherwise does. The flexible plastic or fabric liner is then installed in the center of the side wall with its outer edges bent over the top edges of the side wall, using the hooks to hold it in place while the sectional channel top rail is superimposed upon them, after which the braces are removed.

In the drawing,

FIGURE 1 is a perspective view of a swimming pool erected by the means and method of the present invention, after removing the side wall braces;

FIGURE 2 is a perspective view of one of the side wall braces;

FIGURE 3 is an enlarged perspective view of the coiled side wall at the start of its erection;

FIGURE 4 is a perspective view of the swimming pool side wall structure before removing the braces and before inserting the liner;

FIGURE 5 is an enlarged cross-section through the swimming pool side wall after the erection of the side wall and installation of the water-holding liner but before removing the braces and before installing the top rail; and

FIGURE 6 is an enlarged cross-section through the upper portion of th swimming pool side wall of FIGURE 5 after installation of the top rail.

Referring to the drawing in deail, FIGURE 1 shows a completely erected above-ground swimming pool **10** consisting of a sheet metal side wall **12**, the lower and upper edges of which are installed in sectional channel bottom and top rails **14** and **16** respectively collectively forming a side wall structure **15**, and with a liner **18** of flexible sheet material such as sheet fabric or synthetic plastic material for holding the water. The rails **14** and **16** are of channel cross-section with spaced top flanges defining a slot therebetween.

Hitherto, the erection of such a swimming pool has been carried out by teams of skilled workmen employed by the swimming pool company due to the fact that unless several men are used during the erection, the sheet metal side wall collapses inward and the erection procedure becomes entirely unmanageable. The present invention enables a single individual to erect or dismantle his own swimming pool in a rapid and easy manner by the method and means set forth below.

In erecting the side wall **12** of the swimming pool **10**, the present invention makes use of braces or guys **20** placed in succession at intervals around the perimeter of the swimming pool **10** as erection proceeds. Each brace of guy **20** (FIGURE 2) consists of an approximately W-shaped top edge clip hook **22** to which is connected one end of a flexible tension member **24**, such as a cable, rope,

cord or wire, the other end of which is connected to a stake **26** adapted to be driven into the ground. The clip hook **22** has an approximately U-shaped central clip portion **25** including an arcuate bridge portion **28**, approximately parallel downwardly-extending side arms **30**, bottom curved portions **32** and upwardly-inclined end portions **34** directed away from one another. The clip hooks **22** are conveniently made of heavy wire or rod stock. The flexible tension member **24** preferably has loops **36** and **38** at its opposite ends with the loop **36** encircling one of the upwardly-inclined clip hook ends **34** and the latter encircling the shank **40** of the stake **26**. The stake **26** preferably has a pointed lower end **42** and an enlarged upper end or head **44** which prevents the loop **38** from slipping thereover. The length of each flexible member **24** is about two feet longer than the height of the pool side wall **12**.

In erecting the swimming pool **10** of FIGURE 1, the operator first prepares the ground over the area to be occupied by the swimming pool, removing the turf and preferably applying a layer of loose fine gravel or sand. He then lays down the individual sections **46** of the bottom guide rail **14**, placing them end to end in a curved path around the intended periphery of the swimming pool with their channels and slots facing upward. The operator then lays out the braces **20** in directions radial to the periphery of the swimming pool and outside the pool area at intervals of three or four feet around the bottom rails **14**, with the clip hooks **22** nearest the bottom rail **14** and with the stakes **26** remote therefrom.

The operator then sands the coil **48** of sheet metal side wall material **50** upright near a suitable starting point **52** in one of the bottom guide rail sections **46**, and having unrolled a short length of about five feet thereof, he feeds the lower edge **54** thereof through the central slot into the channel of the bottom rail section **46**, starting at the lower corners of the vertical end edge **56** (FIGURE 3). While holding the end edge **56** upright, he applies the clip hook **22** of the first brace **20** over the upper edge **58** near the upper corners of the end edge **56**, with the flexible tension member **24** thereof extending radially inward and downward toward the proposed center of the pool. He then drives the stake **26** into the ground with the tension member **24** taut. This is the only inwardly-extending brace **20** required, all others being directed outward.

At about the same time, he also applies a second clip hook **22** immediately adjacent the first clip hook but with the flexible tension member **24** extending outward to its stake **26** in the opposite direction, so that the upstanding end edge **56** of the sheet metal **50** is braced outward as well as inward at the starting point **52**. The natural tendency for the sheet metal side wall material **50** during erection is to collapse inward toward the center of the swimming pool **10**, so that the inner brace **20** is required only at the starting point **56**. The outer braces **20**, however, are required at intervals of three or four feet around the entire periphery of the pool **10** during its erection, as shown in FIGURE 5.

The operator then unwinds the coil **48** while he continues to insert the lower edge **54** in each end-to-end section **46** of the channel bottom guide rail **14**, as shown in FIGURE 3, applying an outer brace **20** at each interval as he proceeds. In this manner he single-handedly guys the sheet metal side wall material to the ground. When the entire roll or coil **48** is unrolled and the side wall **12** is completely erected (FIGURE 4), he joins its opposite ends **56** and **59** in the usual manner, such as by overlapping, bolting or the like. The operator then builds up a concave mound **60** of dirt or sand against the inside of the side wall **12** (FIGURE 5). He then applies a grooved inner trim strip **62** of rubber or plastic to the upper edge

58 of the side wall 12 to prevent its cutting the material of the liner 18. After this, he removes the inner brace 20 and places the flexible liner 18 in position in the area inside the sidewall 12. He now brings the liner edge portion 64 up to and over the top edge 58, smooths in out to remove wrinkles, and bends it reversely downward in a fold 66, removing the clip hooks 22 in succession as he does so. He then installs a grooved outer trim strip 68 of rubber or plastic over the fold 66 to firmly hold it in place. Finally, he applies each top rail section 70 over the outer trim strip 68, whereupon he can remove the clip hooks 22 of its braces 20. The assembly of the pool is now complete except for the possible addition of the vertical struts or side bars which are supplied with some pools for strengthening the side walls thereof.

While the sheet metal coil is being unrolled, it remains inside the periphery of the pool as defined by the channel bottom guide rail 14 (FIGURE 3). The W-shaped clip hooks prevent marring or denting of the sheet metal 50, not only near its upper edge 58 but also between its top and bottom edges 58 and 54. Moreover, the slight spring effect of its central clip portion 25 squeezes together the opposite sides of the edge portion 64 of the liner 18 and prevents slippage thereof.

The swimming pool 10 may be disassembled into its several components by reversing the steps of the foregoing method of assembling it. The present invention is preferably being furnished to the user in the form of a pool erection and disassembly kit containing a suitable number of the clip hooks 22 and stakes 26 and a sufficient length of the cord, rope or cable for the tension members 24 for the particular size of pool to be erected.

What I claim is:

1. A method of single-handedly erecting a swimming pool having sheet metal side walls, sectional bottom and top channel rails and a flexible water-holding liner, said method comprising

laying down and interconnecting channel shaped bottom rail sections end-to-end in a path on the ground defining the proposed periphery of the swimming pool with their channels facing upward,

positioning a continuous roll of sheet metal upright while inserting the lower corner of its exposed end edge in the channel of one of the bottom rail sections at an assumed starting point.

holding the outer end edge of the sheet metal roll upright while detachably guying the upper corner of said end edge downward to the ground on opposite sides of the bottom rail,

thereafter unrolling the sheet metal by moving the roll along said path while feeding its lower edge of the sheet metal into the channel of the bottom rail.

halting such unrolling and feeding intermittently at successive intervals therealong and, during such halting detachably guying the upper edge of the sheet metal approximately radially downward and outward therefrom to the ground at each of said intervals therealong,

joining the meeting ends of the sheet metal to one another upon completing the peripheral path,

reversely bending the marginal edge portions of the liner over the upper edges of the sheet metal while momentarily unguying the sheet metal progressively therealong,

again momentarily unguying the liner-covered upper edge of the sheet metal while applying thereto and joining end-to-end the top rail sections with their channels extending downward over the reversely-bent edge portions of the liner, and removing the guying extending inwardly of the side walls.

2. A method, according to claim 1, wherein the guying and unguying is performed by detachably hooking and unhooking the same respectively to the upper edge of the sheet metal.

3. A method, according to claim 1, wherein the top rail sections are reguyed to the ground as each section thereof is applied to the liner-covered top edge of the side wall sheet metal.

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