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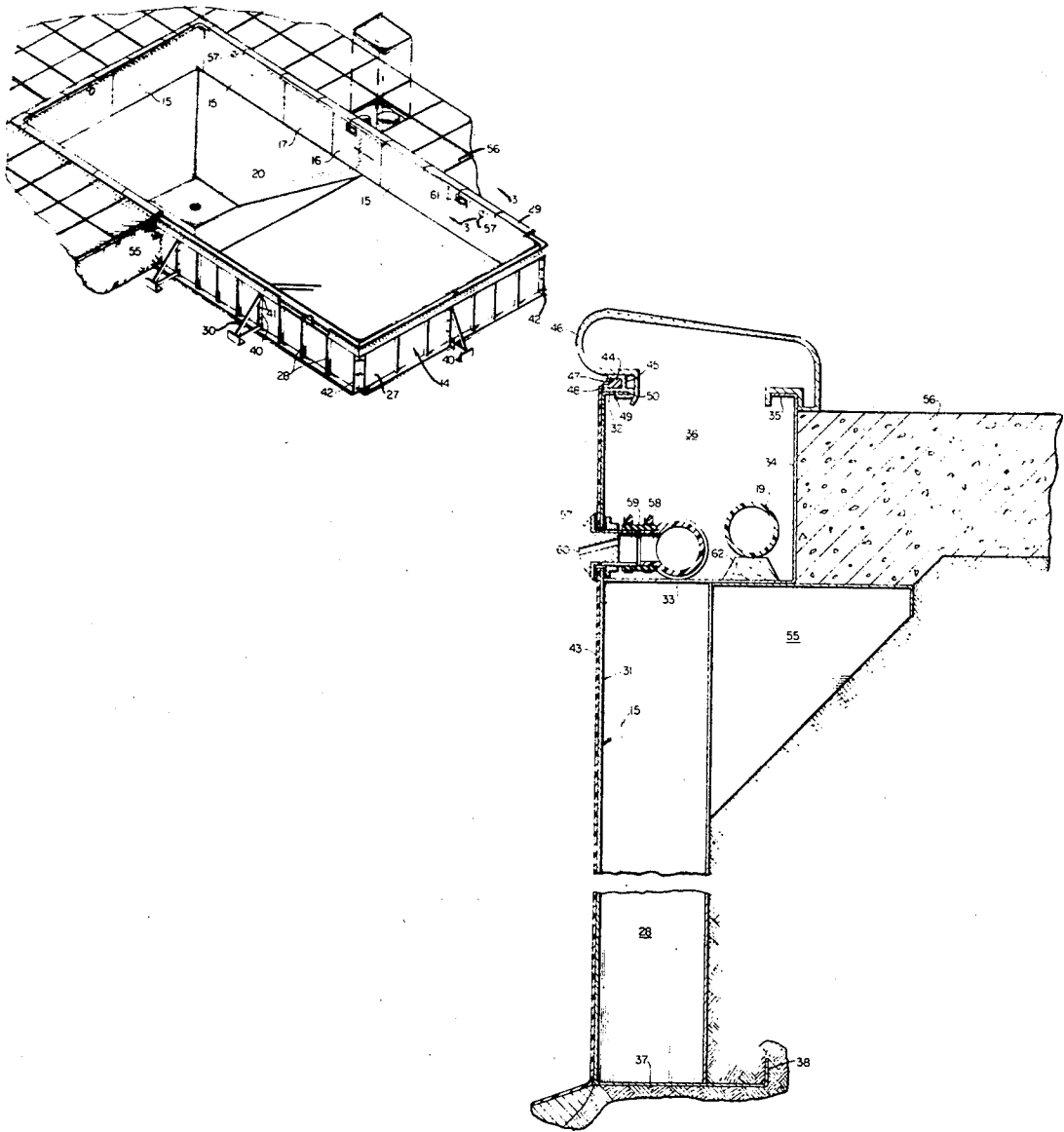
[54] **PREFABRICATED SWIMMING POOL**
6 Claims, 4 Drawing Figs.

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[56] References Cited			
UNITED STATES PATENTS			
2,982,970	5/1961	Kennedy	4/172.18
3,319,264	5/1967	Scarano	4/172.17
3,363,767	1/1968	Ellis	4/172.17
3,386,107	6/1968	Whitten, Jr.	4/172.17
3,391,790	7/1968	Lerner	4/172.17 X
3,432,867	3/1969	Whitten, Jr.	4/172.17
3,537,111	11/1970	Whitten, Jr.	4/172.17

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ABSTRACT: A lined pool which has standardized vertical wall sections with upper troughs and flexible supply piping and flexible skimmer piping housed in said troughs to eliminate the need for a watertight trough and the problem of ground support or ground engagement with the piping.



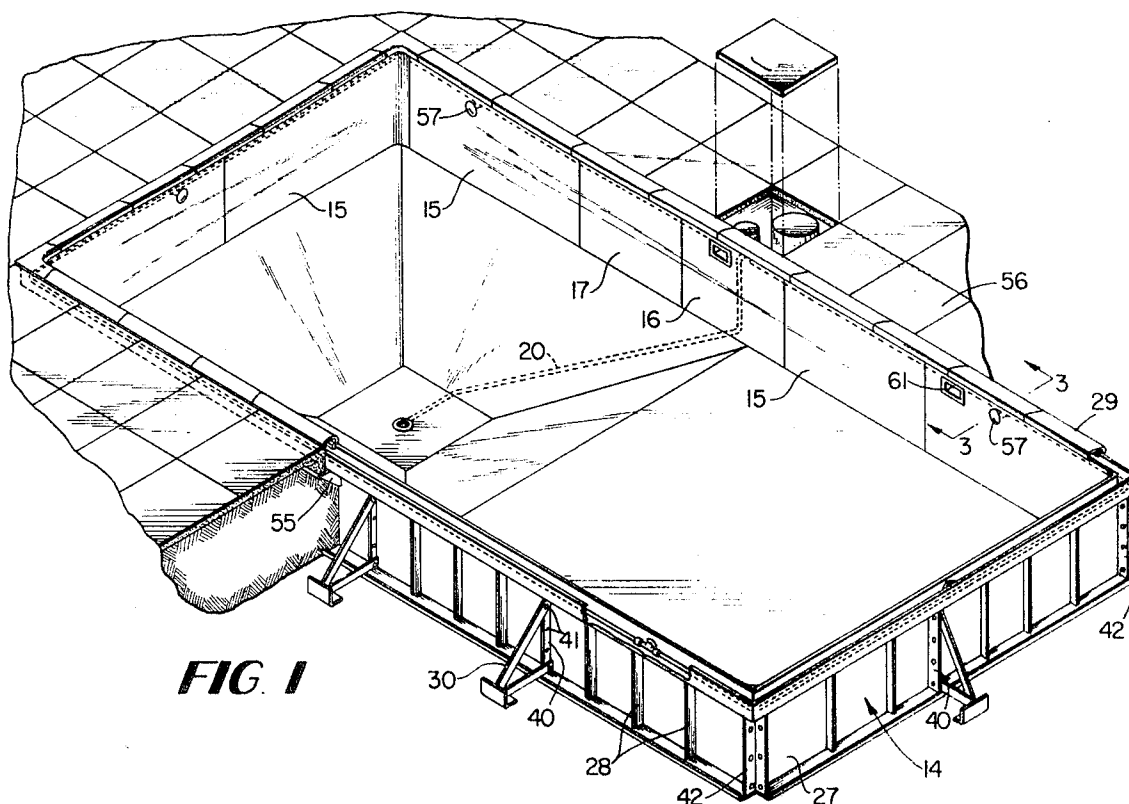


FIG. 1

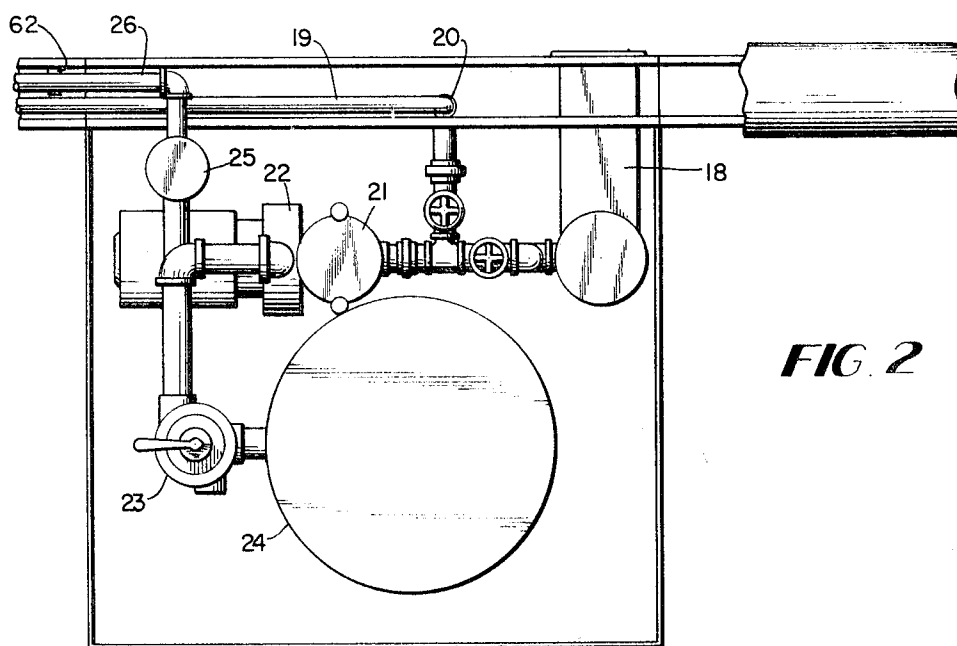


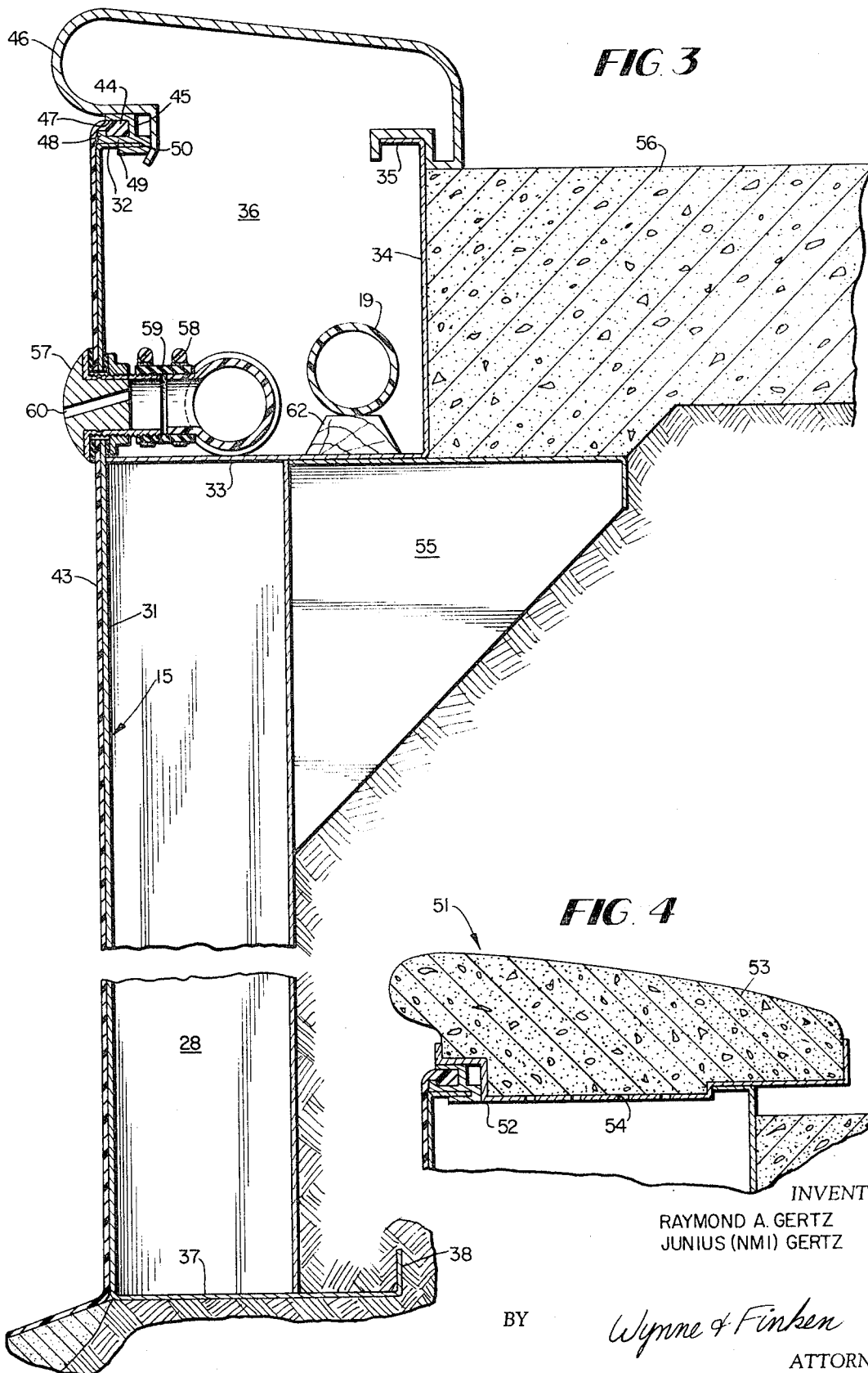
FIG. 2

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PREFABRICATED SWIMMING POOL

This invention relates to the construction of a pool from standardized prefabricated wall sections from which is suspended a flexible pool liner which provides the water container. The bottom of the liner usually rests on a sand base and land fill is returned to the outer perimeter of the wall sections. A promenade can be provided around the top perimeter of the pool.

Pools of this type are particularly suitable for home use and it is possible for the home owner to construct the pool—once a suitable excavation has been made. Usually, a local contractor with some experience in pool construction is employed. Even when a contractor is employed, troubles often develop particularly in the water supply piping and the skimmer return piping due to freezing conditions, landfill settlement, and inadvertencies in piping installation. Flexible plastic pipe is used and if it should descend with settling soil and become bent at a corner of the pool or at some other sharp edge along the side of the pool, a break may occur requiring excavation for repair. Freezing conditions increase the possibility of breaks since the metal conducts the cold directly to such weakened points. Other conditions can also cause breaks.

This invention reduces the possibility of construction inadvertencies by relying solely on a vinyl liner to contain the water. The liner is suspended from the top of standardized prefabricated wall sections which are connected together in a nonwatertight fashion. The wall sections provide a trough around the pool and the supply pipe and skimmer return pipe are housed in this trough. The proper inclination of the pipes can be easily checked to insure complete drainage for the winter season. If a fault develops, repair is easily accomplished on either pipe, since the top coping may be easily removed from the trough.

These and other advantages will become more apparent in the following wherein:

FIG. 1 is a perspective view partly in section of the pool;

FIG. 2 is a top plan view of a wall section combined with a water treatment system with parts broken away;

FIG. 3 is a section taken on line 3-3 of FIG. 1; and

FIG. 4 is a section similar to the top of FIG. 3 showing a precast concrete coping part seated in a grate lower supporting frame.

Referring to FIGS. 1 and 2, the pool shown involves a nonwatertight enclosure 14 made up of prefabricated rigid vertical wall sections 15 on each side and on each end. Each section is the same height and length, except for water treatment system wall section 16 and its adjacent adapter section 17.

The prefabricated water treatment system wall section 16 is shown in FIG. 2 as including a skimmer conduit 18, skimmer piping 19 including a bottom return 20, haircatcher 21, pump 22, valve 23, filter 24 and then from filter to chlorinator 25 and the supply piping 26.

The wall sections 15, 16 and 17 each include a main panel 27, wall stiffeners 28, a top coping for covering the trough 29 of the main panel, and where required braces 30.

The main panel 27 includes a vertical wall 31 which has outwardly extending therefrom a top lip 32, an intermediate trough bottom 33 integral with an outer vertical trough wall 34 with an inwardly extending top flange 35 defining the trough 36, and a bottom base plate 37 with an upstanding outer portion 38.

The wall stiffeners 28 extend vertically along the outer surface of vertical wall 31 between the base plate 37 and the trough bottom 33, the stiffeners 28 being of less width (FIG. 3).

The stiffeners 40 (FIG. 1) at each end of a wall section 15 serve as connection means with bolts 41 or the like for joining adjacent wall sections to form a nonwatertight enclosure 14 of desired size and shape. An angle 42 is used at the corners.

The excavation is deeper than the placement of the enclosure 14 and a flexible pool liner 43 of vinyl or the like is used

as the water container (FIG. 3). The top of the liner 43 has a bead 44 which is held in a liner clip 45 which interconnects the top lip 32 with the top coping 46. The top coping 46 snaps into position over the trough 36 by the aforementioned engagement and engagement with the top flange 35.

The liner clip 45 extends around the full perimeter of the pool and in the cross section of FIG. 3 includes a top pocket 47 for the liner bead 44, the top pocket 47 having an upstanding portion 48 for locking the bead in place on the common intermediate wall 49 of the slit 50 which receives the top lip 32 of the wall section. The coping 46 seats on the top of the pocket 47 and clamps against the backwall of the slit 50.

The top coping 51 of FIG. 4 includes a lower supporting frame 52 and an upper precast concrete coping part 53. The frame 52 is shown with holes 54 therethrough to enable its use without the coping part 53 and act as a draining grate.

A support 55 extends outwardly from the trough 36 and a wall stiffener 28 a sufficient distance to support a promenade 56 at the critical backfill zone next to the pool.

The supply pipes are connected to the inlets 57 by means of a clamp 58 and hose 59 (FIG. 3). The inlet 57 has a directional jet 60 for water activation. The skimmer pipes 19 can be similarly connected.

FIG. 1 shows a skimmer opening 61 of the type to be so connected.

Means are provided to insure clearing of the pipes when securing the pool for winter and for avoiding airlocks and the like. Wooden blocks 62 can be placed under each pipe to insure proper flow. The placement will vary with the installation. The inclination is not great and is not apparent in FIG. 1. FIG. 3 shows the skimmer pipe elevated slightly by block 62 to insure flow back to the water treatment return 20. FIG. 2 shows the supply pipe 26 above the skimmer pipe 19 with block 62 to insure flow to the inlet 57.

By providing a trough 36 for both flexible supply pipe 26 and skimmer pipe 19, adjustments of inclination can be made over the years as the original position of the wall sections shift due to ground settling, swelling, or the like. In this way, the key to problem prevention is provided since the water system is most critical.

We claim:

1. A prefabricated pool comprising
standardized rigid vertical wall sections connected to define a nonwatertight enclosure;
a flexible pool liner covering the inner faces of the sections and defining a water holding container;
a water treatment system combined with one of the wall sections;

each of said wall sections having a main panel including a vertical wall having outwardly extending therefrom a top lip, an intermediate trough bottom integral with an outer vertical trough wall with an inwardly extending top flange defining a trough, and a bottom baseplate; wall stiffeners at the outer side of the vertical wall between the baseplate and the trough bottom, a stiffener being positioned at each vertical end of each section for nonwatertight connection to an adjacent section; a top coping removably connected to said top lip and said top flange;
at least one of said sections having a water inlet at the trough for supplying water to the pool;
at least one of said sections having a skimmer outlet for receiving water from the pool;
a flexible supply pipe extending from said water treatment system along said trough to said water inlet;
a flexible skimmer pipe extending from said skimmer outlet along said trough to said water treatment system;
and means for inclining the pipes to insure flow.

2. A prefabricated pool as defined in claim 1 and wherein each wall section includes a support extending outwardly from said trough for supporting a promenade thereby avoiding problems of voids in the backfill.

3. A prefabricated pool as defined in claim 1 and wherein said supply pipe is connected to said inlet by means of a clamped hose.

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4. A prefabricated pool as defined in claim 1 wherein said pool liner is suspended from said top lip by a liner clip inter-connecting the top lip with the top coping.

5. A prefabricated pool as defined in claim 4 and wherein

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said top coping has a lower supporting frame and an upper precast concrete coping part.

6. A prefabricated pool as defined in claim 4 and wherein said coping has draining holes which act as a grate.

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