May 25, 1926. 1,585,736

G. E. ROHMER

CONSTRUCTION OF SWIMMING POOLS

Filed August 11, 1924 2 Sheets-Sheet 1

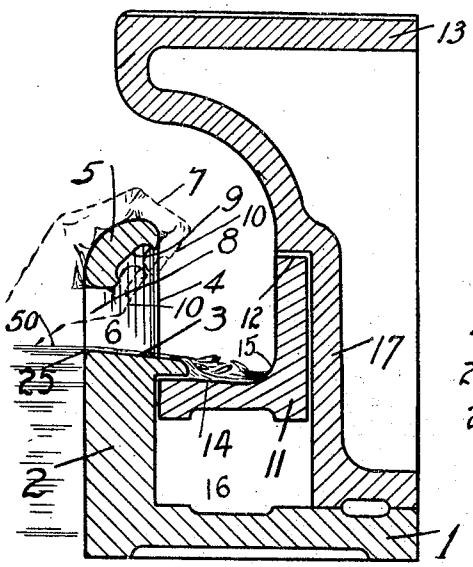


Fig.- 1

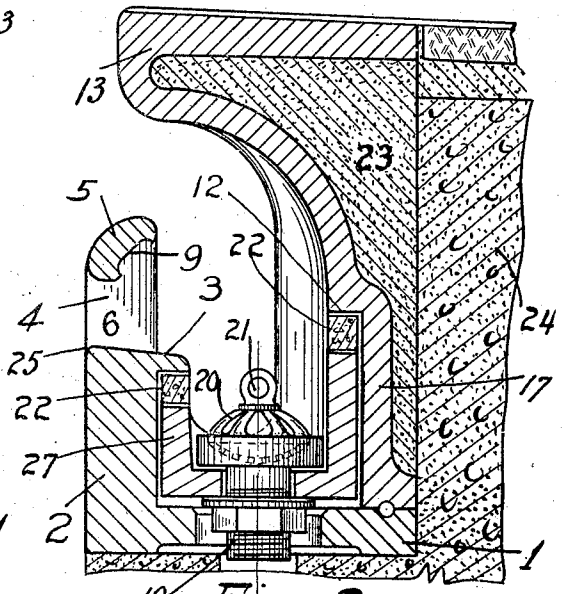


Fig. 2

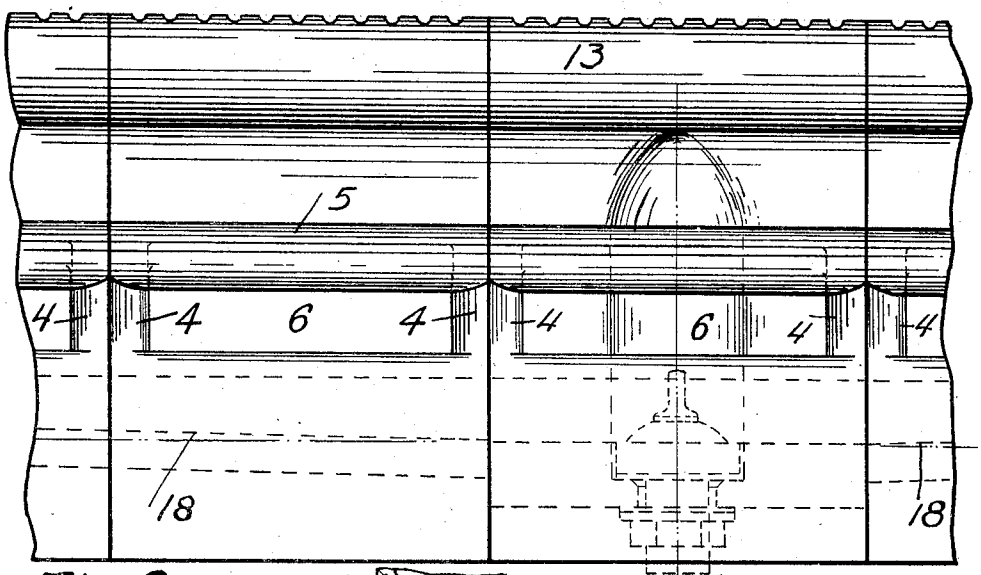


Fig. 3

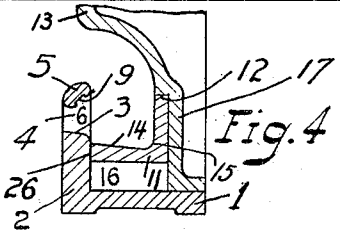


Fig. 4

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Filed August 11, 1924 2 Sheets-Sheet 2

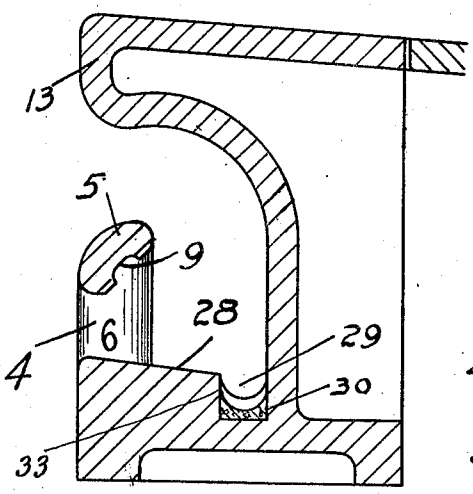


Fig. 5

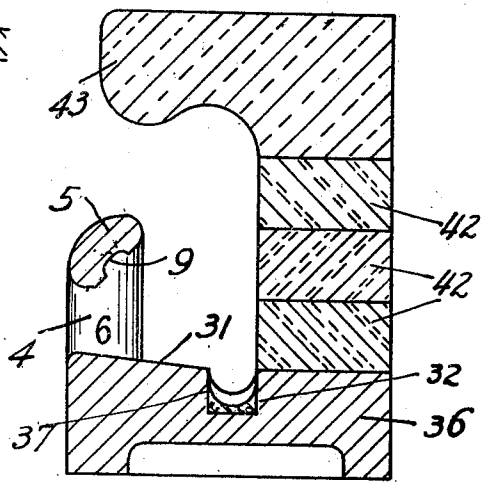


Fig. 6

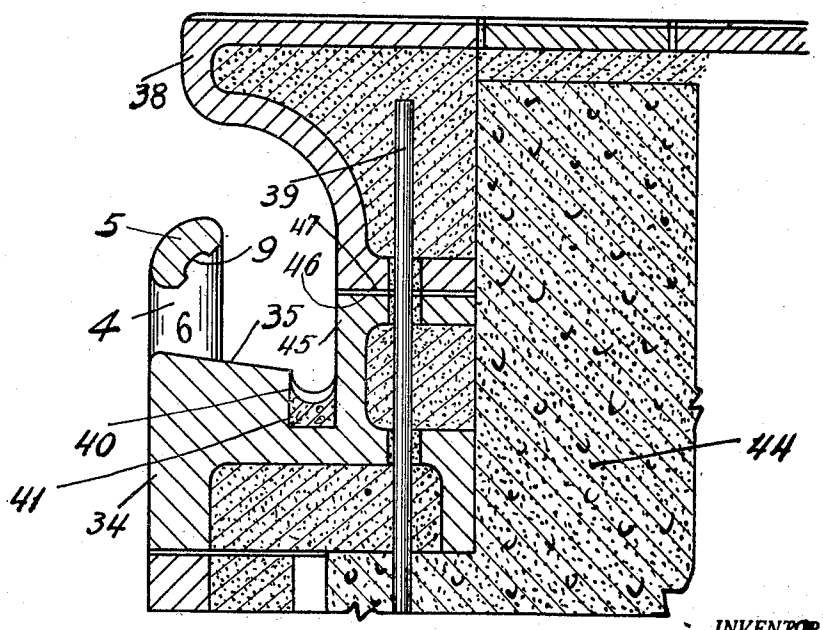


Fig. 7

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UNITED STATES PATENT OFFICE.

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CONSTRUCTION OF SWIMMING POOLS.

Application filed August 11, 1924. Serial No. 731,410.

The object of my invention is to provide at the upper perimeter of the swimming pool, a life rail entirely separate from the rest of the flushing walls of the pool and to eliminate the gutter itself, replacing it by inclined slopes or spill-slabs for the proper drainage of the overflow water.

For this purpose, my invention consists of certain new and useful improvements in the construction of the top perimeter of swimming pool to be described hereinafter and finally pointed out in the claims.

Several embodiments of my invention are illustrated in the accompanying drawings, in which Figures 1, 2 and 3 are cross-sections and a longitudinal elevation respectively of the first embodiment, and Figures 4, 5, 6 and 7 cross-sections of other embodiments.

Similar reference numerals indicate corresponding parts throughout the different drawings.

To facilitate the erection of my different types of life-rail and spill-slab drainage structures, they are preferably fabricated in unit lengths and made of enameled terra cotta, marble, or any other suitable building material.

In Figures 1 and 3 the first section of the structure is composed of a bench (1) grouted to the pool retaining wall and extended at its exterior side to form a wall (2) supporting an inclined surface or spill-slab (3). At both ends of each unit length of this section, two upright members (4) support the life rail (5), thus forming the intervening flat arch (6) between the life rail and the inclined spill slabs.

The life rail itself is of special rounded shape enabling a firm grip for the fingers (7) and thumb (8). The depression (9) forms a recess into which the fingers and thumb last phalanx (19) obtain an additional hold.

The second section, or member 11 of my top perimeter structure, is grouted to the bench (1) and extends vertically on one side, forming at 12 a shoulder on which the third member or cope (13) rests, the cope itself extending over the life rail. At 14 the second member extends laterally, underlapping the first spill slab, and forming an inclined surface or spill slab, or an inclination in continuity to the slant of the first spill slab (3); the concave corner provided at 15 forms a canalization or trough, into which the overflow water will collect.

The chamber (16) between the upright portion (17) of the cope member and the wall (2) forms a duct all around the top perimeter of the pool, into which the spill-slabs can be arranged in proper sloping disposition. (See indicated slope line 18, Figure 3).

In Figure 2 the second member (27) is especially shaped to receive the bronze outlet fixture (19) located at the lowest point of the spill-slab slope and connected to the drainage or return piping system leading to the sump or to the water purification plant.

In order to prevent scum and floating refuse to find their way into the pipes and clog them, a removable bowl strainer (20) is adapted to collect and hold those impurities. It is fitted to the bronze outlet in such a manner that by placing a finger through the eye (21, Figure 2) the bowl strainer can be lifted out, cleaned and replaced in its socket with great ease. This enables frequent cleaning of the bowl for the added purpose of preventing fermentation and foul smell of waste matter.

The mortar joints (22) indicate the total sloping height of the spill-slabs and the grouting (23, Figure 2) illustrates how the coping member by resting at 12, is locked in position and held securely between the spill-slab member and the retaining wall (24).

In Figure 2 I have shown the structure holding the bronze outlet made in three parts to illustrate the height of the sloping spill-slabs between high and low sloping points, but I propose to build that particular unit in one piece.

When setting the structure in place the first member (1) is grouted on the depression provided on top of the retaining wall, in such a manner that the high point (25) of the spill-slab (3) is slightly above the determined water level in the pool. Therein lies one of the most important new features and advantages of my invention, because a slight raise of water level (as shown at 50) is all that is needed to overflow or flush the water into the flat duct made by the sloping slabs; whereas in previous designs, having gutters, one side of which constitutes the life rail, it is necessary to raise the water level several inches to overflow above the life rail itself.

It being common practice to flush swimming pools several times a day, the economy in water alone will enable important savings

in the operating cost of pools equipped with my life rail structure and spill-slab drainage system.

A second embodiment of my invention is illustrated in Figure 4, the overlapping of one spill-slab over the other having been eliminated as shown by the straight wall (26).

The third embodiment (Figure 5) illustrates a structure made in one piece with a continuous spill-slab (28) leading to a longitudinal trough (29), the drainage slope being obtained by the cement lining (30) set within the walls (33).

In the fourth embodiment (Figure 7) the structure is composed of a base member (34) having an inclined spill-slab (35) leading to the longitudinal canalization (40) into which the cement grouting (41) is shaped in the form of a trough. In order to make the structure in two parts, the base (34) is extended at 45 to form the bench (46) on which the base (47) of the cope (38) is set, proper anchorage being obtained by the reinforcement rod of the retaining wall (44) passing through the base member and the cope member.

Finally, in embodiment 6, the base member (36) embodying the spill-slab (31) with its adjacent longitudinal canalization (37) into which the cement trough (32) is grouted; the wall of the structure, opposite to the life rail, is built of enameled bricks (42) on which the overhanging cope (43) is set.

It should be noticed that in all the different embodiments illustrated, the cope overhangs the drainage trough, the spill-slabs and the life rail, the open space between each of those members and features being proportionately dimensioned, as illustrated in the drawings. I have also illustrated the cope either flush with the life rail (as shown in Figure 5) or offset (as shown in Figures 1, 2, 3, 4, 6 and 7).

All the profiles of the different members illustrated in this invention have been evolved with the view of eliminating cavities and pockets. Furthermore, all the faces of the structures are readily accessible, thus allowing for the easy removal and cleaning of all scum and impurities which might coat the faces of the structures through the flushing of the swimming pool.

I have illustrated preferred and satisfactory forms and combinations of my invention, but it is obvious that changes therein can be made without departing from the spirit and scope thereof as defined in appended claims.

I claim:

1. A swimming pool having drainage means located at its high water level periphery, life rail means above said high water level periphery and open spans between said drainage means and said life rail means.

2. In the overflowing portion of the walls of a swimming pool, a top perimeter structure having overflowing means at the highest overflowing water level of said pool, slanting means to carry off the overflow, damming means for said overflow, draining means adjacent to the said damming means and life rail means above said overflowing means.

3. In the overflowing portion of the walls of a swimming pool, a top perimeter structure having overflowing means at the highest overflowing water level of said pool, lateral slanting means to carry off the overflow, vertical damming means for said overflow, longitudinal draining means adjacent to the said damming means and life rail means away from said overflowing means.

4. In the overflowing portion of the walls of a swimming pool, a top perimeter structure having overflowing means at the highest overflowing water level of said pool, lateral slanting means to carry off the overflow, vertical damming means for said overflow, longitudinal draining means and outlet means adjacent to the said damming means and life rail means away from said overflowing means.

5. A swimming pool having at the top of its high water level periphery, a perimeter structure formed by an outwardly inclined surface, a life rail perimeter above said outwardly inclined surface perimeter, open spaces between the top edge of said outwardly inclined surface and said life rail perimeters, a vertical wall perimeter opposite, parallel and away from said life rail perimeter and a coping perimeter crowning said vertical wall perimeter.

6. A swimming pool having at the top of its high water level periphery, a perimeter structure formed by an outwardly inclined surface, a life rail perimeter above said outwardly inclined surface perimeter, open spaces between the top edge of said outwardly inclined surface and said life rail perimeters, a vertical wall perimeter, parallel and away from said life rail perimeter and a coping perimeter crowning said vertical wall perimeter, said coping perimeter overhanging said outwardly inclined surface, said life rail and said vertical wall perimeters.

7. A swimming pool top perimeter structure comprising an inclined spill slab starting at the edge of the high water level in said pool, a life rail above said inclined spill slab, open spaces between said inclined spill slab and said life rail, a vertical wall opposite to said life rail and a cope overhanging said inclined spill slab, said life rail and said vertical wall.

8. A swimming pool inside lining wall top perimeter structure comprising an inclined spill slab with its high slanting edge

flush with the highest water level in said pool, a life rail away from said inclined spill slab and said life rail, a vertical wall having its base joining the lowest level in said inclined spill slab and a cope crowning said vertical wall.

9. A swimming pool inside lining wall top perimeter structure comprising an inclined spill slab with its high slanting edge flush with the highest water level in said pool, a life rail away from said inclined spill slab, open spaces between said inclined spill slab and said life rail, a vertical wall having its base joining the lowest level in said inclined spill slab, drainage means in said lowest level of inclined spill slab and a cope crowning said vertical wall.

10. A swimming pool lining wall top perimeter structure comprising an inclined spill slab with its high slanting edge flush with the highest water level in said pool, a life rail away from said inclined spill slab and said life rail, a duct adjacent to the lowest level of said inclined spill slab, a vertical wall adjacent to said duct and a cope crowning said vertical wall.

11. A swimming pool lining wall top perimeter structure comprising an inclined spill slab with its high slanting edge flush with the highest water level in said pool, a life rail away from said inclined spill slab, open spaces between said inclined spill slab and said life rail, a duct adjacent to the lowest level of said inclined spill slab, sloping means in said duct, a vertical wall adjacent to said duct and a cope crowning said vertical wall.

12. A swimming pool lining wall top perimeter structure comprising an inclined spill slab with its high slanting edge flush with the highest water level in said pool, a life rail away from said inclined spill slab, open spaces between said inclined spill slab and said life rail, a duct adjacent to the lowest level of said inclined spill slab, longitudinal sloping means in said duct, drainage means in said duct, a vertical wall adjacent to said duct and a cope crowning said vertical wall; said vertical wall and said cope being parallel to said life rail and to said duct.

13. In a top perimeter structure for a swimming pool, a laterally slanting slab perimeter, a life rail perimeter away from said laterally slanting slab perimeter, a plurality of means supporting said life rail perimeter, a vertical wall perimeter adjacent to the lowest level of said laterally slanting slab perimeter and a cope perimeter crowning said vertical wall perimeter.

14. In a top perimeter structure for a swimming pool, a laterally slanting slab perimeter having its high edge flush with the highest water level in said pool, a life rail perimeter away from said laterally slanting slab perimeter, a plurality of means to support said life rail perimeter, a vertical wall perimeter joining the lowest level of said laterally slanting slab perimeter, drainage means adjacent to the base of said vertical wall perimeter and a cope perimeter crowning said vertical wall perimeter.

15. In a top perimeter structure for a swimming pool, a laterally slanting slab perimeter having its high edge flush with the highest water level in said pool, a life rail perimeter away from said laterally slanting slab perimeter, a plurality of means to support said life rail perimeter, a vertical wall perimeter joining the lowest level of said laterally slanting slab perimeter, drainage means adjacent to the base of said vertical wall perimeter and a cope perimeter crowning said vertical wall perimeter, said cope perimeter overhanging said laterally slanting slab perimeter and said vertical wall perimeter.

16. In a top perimeter structure for a swimming pool, a laterally slanting slab perimeter having its high edge flush with the highest water level in said pool, a life rail perimeter away from said laterally slanting slab perimeter, a plurality of means to support said life rail perimeter, a vertical wall perimeter joining the lowest level of said laterally slanting slab perimeter, drainage means and outlet means adjacent to the base of said vertical wall perimeter and a cope perimeter crowning said vertical wall perimeter, said cope perimeter overhanging said laterally slanting slab perimeter and said vertical wall perimeter.

17. In the overflowing portion of the wall of a liquid fluid container a structure comprising an outwardly slanting surface leading to an adjacent vertical wall, said outwardly slanting surface having its high edge horizontal and level with the highest liquid fluid level in said container and its lowest level joining said vertical wall.

18. In the walls of a container for liquids, a top perimeter structure having overflowing means at the highest overflowing level of said liquids, slanting means to carry off the overflow, damming means for said overflow and draining means adjacent to the said damming means.

19. In the walls of a container for liquids, a top perimeter structure having overflowing means at the highest overflowing level of said liquids, slanting means to carry off the overflow, damming means for said overflow, longitudinal draining means and outlet means for said liquids adjacent to the said damming means.

20. In a top perimeter structure for a swimming pool, a laterally slanting surface perimeter having its high edge flush with the highest water level in said pool, and a vertical wall perimeter adjacent to the lowest level of said laterally slanting sur-

face perimeter, said laterally slanting surface perimeter being made of a continuity of flat tiles adjacent to each other.

21. In a top perimeter structure for a swimming pool, a laterally slanting overflow surface perimeter built of a continuity of flat tile rows adjacent to each other, the high edge of said laterally slanting overflow surface perimeter being level with the highest water level in said pool, a vertical wall perimeter adjacent to the lowest level of said laterally slanting overflow surface perimeter and drainage means adjacent to said vertical wall perimeter.

22. In a top perimeter structure for a swimming pool, a laterally slanting overflow surface perimeter built of a continuity of flat tile rows, each row overlapping each other at their joint line, the high edge of said laterally slanting overflow surface perimeter being level and horizontal with the highest water level in said pool, a vertical wall perimeter adjacent to the lowest level of said laterally slanting overflow surface perimeter, and outlet drainage means adjacent to the base of said vertical wall perimeter.

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