

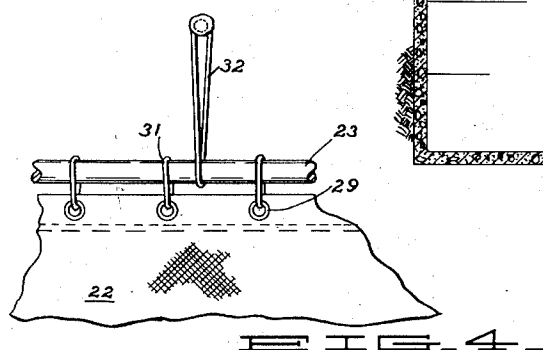
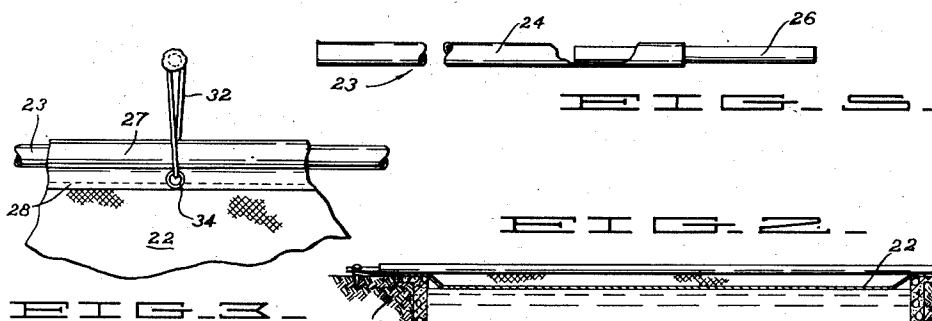
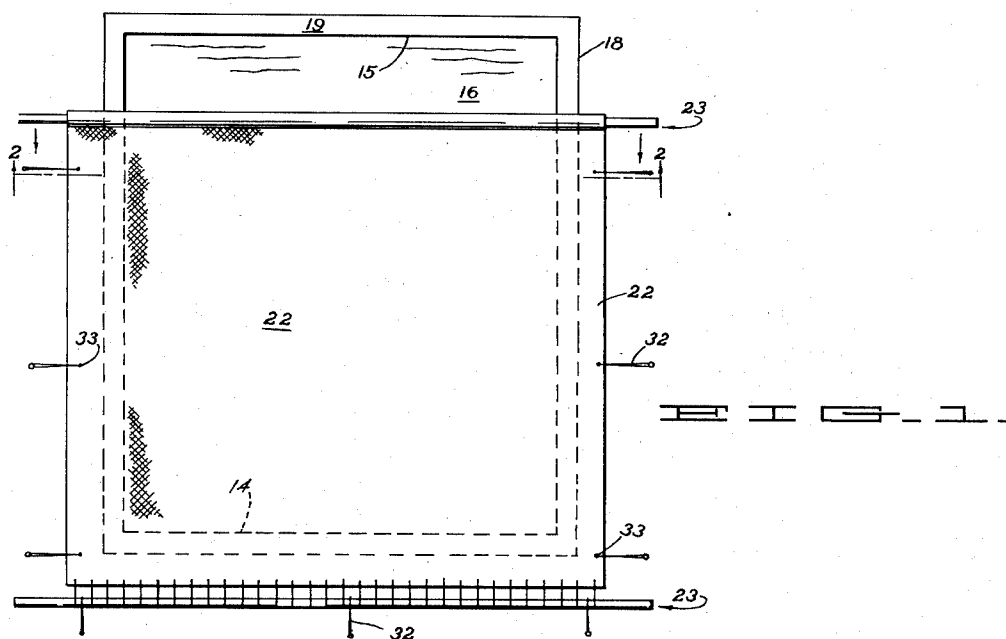
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COVER ARRANGEMENT FOR SWIMMING POOLS AND THE LIKE

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COVER ARRANGEMENT FOR SWIMMING
POOLS AND THE LIKE

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1

This invention relates to cover arrangements for large open-topped liquid containers, and is more particularly directed to a simplified and easily removed covering for swimming pools or like structures.

Due to the ever-increasing popularity of the sport of swimming, as well as the more economical construction methods now utilized, a large number of private parties have built swimming pools on their property. Generally speaking, such pools are of smaller sizes than the so-called public pools, but in many regards there are maintenance and other problems which are common to both types of structures.

One of the more apparent difficulties encountered in pool maintenance, particularly where the pool is situated adjacent trees or like shrubbery, is that of removing leaves, grass, twigs, scraps of paper or other foreign substances from the water. The task of cleaning the pool is not only time-consuming and distasteful, but it is also pointed out that the addition of certain types of foreign matter to the water in the pool will possibly render the water unsanitary and prevent the pool from being properly utilized.

A further and more serious problem results from the danger of having a young child fall into or deliberately enter a filled pool when no adults are in attendance. Numerous accidental drownings have resulted from such occurrence, and as it is not practical to remove the water from a pool when it is not in use, it is obvious that the pool must be completely fenced in or thoroughly covered to eliminate the possibility of such accidents.

Other shortcomings and undesirable features encountered in outdoor swimming pools have resulted from a cooling of the water during the night hours or other periods of decreased temperatures, surface evaporation which also lowers the water temperature, loss of chlorine (generally added to the water for sanitary reasons) by evaporation or volatilization, and the danger of mosquitos or other insects breeding in the water.

Numerous devices have heretofore been utilized in an effort to overcome one or more of the following disagreeable situations. However, such devices have not gained widespread acceptance because of their relatively heavy weight making it difficult to readily install or remove the same, or due to their inability to eliminate all of the previously discussed difficulties.

It is therefore an object of the present invention to provide a cover for swimming pools or the like which is of lightweight and arranged so that it

2

may be readily and selectively positioned either to cover or uncover the water in the pool.

Another object of the invention is to provide a device of the character described which in one position thereof will be substantially coextensive with the sides of the pool so as to completely cover the water therein, and in another position thereof will form a compact, lightweight bundle which may be easily removed from the vicinity of the pool for storing or other purposes.

A further object of this invention is to provide a cover of the foregoing description which, when positioned over the pool, will serve as an insulator so as to maintain the temperature of the water at a comfortably warm level.

A still further object of the invention is to provide a cover of the type described which may be partially supported by the water in the pool so that it may act as a safety covering when the pool is not being used with a minimum requirement of anchoring devices.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawing accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawing and description may be adopted within the scope of the invention as set forth in the claims.

Referring to the drawing:

Figure 1 is a top plan view of a swimming pool showing the cover of my invention in a partially installed position.

Figure 2 is a cross-sectional view of the pool taken along the plane indicated by the lines 2—2 of Figure 1.

Figure 3 is a portional plan view of the cover showing one means of attaching the same to its support rods.

Figure 4 is a view similar to Figure 3 showing a modified form of attachment.

Figure 5 is a broken detail view of one of the support rods.

The apparatus of the present invention can assume a variety of forms, but I have found that by making the device as simple as possible, it will not only be less expensive to produce, but it will be easier to install on the pool or remove it therefrom. Referring to the drawing, it will be seen that I have shown my cover arrangement in connection with a generally rectangular swimming pool provided with a bottom 11, vertical side walls 12 and 13, and vertical end walls 14 and

3

15. These walls cooperate to define with the bottom 11 an open-topped receptacle 16 in which water 17 may be inserted to a level substantially adjacent the top thereof. The top of the pool is defined by a curbing 18 extending completely around the sides and ends of the pool and preferably formed as integrally molded portions of the vertical walls. The upper surface 19 of such curbing is generally coplanar with the surface of the ground 21 or other base structure in which the pool is disposed.

Means are provided for completely covering the pool when it is not in use so as to prevent foreign matter from entering the water and also to serve as a safety device against a person falling therein. Such means include a generally rectangular sheet 22 of pliant material of a size sufficient to completely overlie the receptacle 16 and preferably large enough to also cover the surface 19 of the curbing. In this manner it will be seen that when the sheet 22 is positioned over the pool, the entire water surface will be effectively isolated. Several different materials could be utilized for making up the sheet 22, but I have found that one of the polyvinyl chlorides such as vinylite, ultron or pantex is best adapted for this particular use, although it is within the scope of this invention to use a heavy polyethylene, nylon, or other suitable material. It will be noted that the foregoing materials when installed over the pool will assume the shape indicated in Figure 2 whereby the water itself will contact and support the larger portion of the sheet thereby minimizing the external supports required. Also, the danger of waterlogging is not present with the foregoing materials, so the cover may be safely left in position for extended periods of time.

In order to readily install or remove sheet 22 from the pool, I prefer to utilize a pair of rod-like members, generally indicated by the numeral 23 on which the sheet may be selectively rolled for storing or unrolled into its water covering position. The length of such members will be such as to permit the same to completely traverse the width of the pool and extend laterally beyond the side edges of the sheet. As most private pools range from 16 to 20 feet in width, I have found that a 24-foot rod member is desirable. For convenience in storing or shipping, the members may be constructed as a plurality of tubular sections 24, adjacent sections being joined together by an insert tubing section 25, this type of construction being illustrated in Figure 3 of the drawing. The sections are preferably light weight, and aluminum or magnesium tubing is therefore recommended.

There are a number of ways in which the sheet ends may be secured to the member 23, and Figure 4 discloses one method of attachment. In this embodiment, the ends of the sheet 22 are provided with a hem portion 27 formed by stitching 28 or an electronically formed seam. The hem portion is arranged to receive member 23, and it will be evident that as the member is rolled along the curbing 18, the sheet 22 will be wound upon or unrolled from the member. An alternate method of attachment is disclosed in Figure 4 of the drawing wherein a plurality of grommets 29 are spaced along the ends of sheet 22 whereby the sheet may be tied to spaced points along member 23 by rope 31 or the like. With either of these forms it will be observed that two, or even one, persons can readily roll one of the members 23 in the direction indicated by the arrows in Figure 1, so as to quickly and easily re-

4

move the covering from the pool. Conversely, when it is desired to cover the pool, the member may be rolled in the opposite direction thereby unwinding sheet 22 into its pool overlying position.

Means are provided to secure sheet 22 and members 23 in position, and as here shown includes a plurality of tie-down ropes 32 extending from the sides and ends of the cover 22 and releasably anchored by stakes, eyelets or the like disposed in the pool curbing or in the base structure 21. The ropes 32 may be secured to the sides of sheet 22 through suitable grommets 33 and to the ends of the sheet either by use of similar grommets 34 or by fastening the rope directly to spaced portions of member 23. It has been determined that the foregoing device is sufficiently strong to support the weight of several adults due to the fact that the impact created by the person falling onto the cover sheet will be primarily absorbed by the water underlying the sheet, and little strain is imposed on the members 23, the sheet 22, or the securing lines.

It should also be here stated that the previously mentioned sheet materials will serve as an effective insulator for the water in the pool. During the night hours, it will retard cooling of the water, and during hours of direct sunlight, it will absorb the heat and raise the temperature of the water to a comfortable level. Also, due to the plasticity of the sheet, the water will be practically entirely sealed off from the atmosphere, thereby eliminating evaporation of the water and loss of chlorine due to evaporation or volatilization.

I claim:

1. A cover arrangement for a swimming pool comprising a substantially rectangular sheet of pliant material for substantially completely overlying said pool and adjacent horizontally disposed marginal portions of the base structure in which the pool is disposed, said sheet being of a relatively water-repellant material whereby medial portions of the sheet may contact and be partially supported by the water in the pool while marginal portions of the sheet are supported on said marginal portions of the base structure, a rod-like member traversing the width of the pool with the ends thereof supported by said marginal portions of the base structure, said member being gravitally supported on and rollable along said portions between the ends of the pool, means securing said member to an end of said sheet whereby said sheet may be selectively wound around and unwound from said member as the latter is rolled along said portions, means for releasably securing said member to said base structure, and means for releasably securing the sides of said sheet to horizontally disposed portions of said base structure.

2. A removable cover for a swimming pool having an open top chamber for holding a quantity of water and horizontally disposed marginal portions adjacent the top of said chamber and encircling the latter comprising, a sheet of pliant material to completely overlie said chamber and said marginal portions, a pair of rod-like members having a length greater than the width of said chamber whereby the ends of the members may be supported on opposite marginal portions of the pool and medial portions of the member may traverse the width of and overlie the chamber, said members being rollable along said marginal portions between the past the ends of said chamber, means securing the ends of said sheet

to the respective members, said sheet being selectively wound around and unwound from said members as the latter are rolled along said marginal portions, and means for releasably securing said members to said marginal portions.

3. Apparatus as set forth in claim 2 in which each of said rod-like members comprise a plurality of telescopically mounted sections whereby the length thereof may be selectively varied.

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