PREFABRICATED COVERED SWIMMING POOL

PREFERRED TO THE BASEMENT FLOOR. THIS ANTEROOM IS ALSO CONSTRUCTED OF A SECTIONAL STEEL-SYNTHETIC COMBINATION. It has a ceiling, which is connected with the support of the light cupola. It is advantageous if the sectional steel synthetic coating combination consists of sectional sheet steel, coated on the inside with waterproof chlorinated-rubber paint or a similar material and on the outside with a hard foam insulating matter, which is applied over an etch primer. In the preferred more developed form of the invention, the pool shell is transportable by means of lifting eyes fixed on the outside and so that the shell can be immersed into a basin provided for the structure.

A further advantageous development of the invention is characterized by a rectangular dom-shaped, double walled transparent cupola, which has pivots on one of its longitudinal sides. That permits the cupola to be lifted by means of well known mechanical, electrical and/or hydraulic devices. The preferred embodiment further is characterized by vent holes located in the neck-shaped support of the light cupola opposite the longitudinal side which is provided with the pivots. Depending on the relative humidity of the air in the inner room of the swimming pool hall, these vent holes can blow hot air onto the inner wall of the light cupola. A fresh air blower, which is regulated in a well known manner by a hydrosist equipped with a heat exchanger, blows air through these vent holes and the side slit between the edge of the transparent cupola and its neck-shaped support. The ventilation slit is adjustable by the mechanical, electrical or hydraulic device that serves to raise the cupola. In the area of the cupula support, it is preferable that the hollow ceiling construction contains some heat radiating surfaces in inclined arrangement; those surfaces radiate heat towards the entry of the pool, and towards a large part of the water surface.

The drawings show a preferred example for the realization of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The entire hall body consists of a pool 1 and an anteroom 9. Pool 1 is bounded by a part of the sidewalls 2 and 3, the rear wall 4 and the front wall 6. Simultaneously, the latter wall 6 partially bounds compartment 8, containing the water treatment and heating plants. The pool room has a hollow ceiling construction 5, which is sloped downward towards rear wall 4, and which bears hollow neck-shaped support 10 for the light cupula 7 above the pool wall 6 and the water treatment plant compartment 8. The hollow support 10 is at the same time constructed as a heating element. The hollow area in neck 10, which forms a water jacket serving to heat the pool room 1 and the anteroom, is connected to an existing central heating system. Those heat radiating surfaces in neck 10 radiate heat in the direction of the entry of the pool, and towards a large part of the water surface. Heat from neck 10 also causes a stratification of the air in the pool room, which substantially inhibits the ascension of water vapors to the light cupula. Simultaneously, the pool water is slightly heated. If the room temperature is kept a few degrees, say 3 °C, above the desired water temperature, that is normally sufficient to offset eventual thermal losses of the pool water, so no additional heating is required, in case, however, water jacket 10 in the light cupula support turns out to be inadequate to heat the pool, additional hollow sections of the cupula roof can be converted into heat radiating elements; or an additional inner wall can be attached to the outside wall and can serve as a heat radiating surface for a heating element.
As seen in Fig. 2, the transparent cupola 7 has on one of its longitudinal sides two pivots 12, and therefore can be lifted by means of any conventional mechanical or hydraulic device. At the side where the pivots are located, warm air can be blown on the inner surface of the cupola by means of ventilation openings which are not shown in the figures. Warm air is supplied by a fresh air fan, provided with a heat exchanger and regulated in the known manner by a hydrotat. That side of the light cupola 7 which lies opposite pivots 12 and the air vents is provided with a vent slit 11, which is located between the edge of the light cupola 7 and its neck-shaped support 10. The ventilation slit 11 can be regulated by the mechanical, electrical and/or hydraulic mechanisms, which lift light cupola 7.

The pool construction contains an anteroom 9 adjacent and above the water treatment plant compartment 8.

The floor of the anteroom preferably lies higher than the pool bottom, namely on the same level as a basement floor of a house, so that after construction of a matching opening in a side wall of anteroom 9, the pool is accessible through a door in an outer basement wall of a house.

If, therefore, the indoor swimming pool is immersed into a basin adjacent to the basement wall of a house, only junctions with the water supply, warm water heating, sewer system and electrical circuit of the house need to be established, and the swimming pool can be used soon after delivery.

What is claimed is:

1. A covered swimming pool shell intended for use with a major portion underground comprising a pool formed with interconnected sides and a bottom made of sheet material, a deck connected to an upper edge of at least one side and extending outward therefrom laterally away from the pool, at least one of the sides extending upward from the pool, a roof overlying the pool integrally connected to and supported by the upwardly extending sides and an entrance in the shell providing access to the pool.

2. The covered swimming pool shell of claim 1 wherein the roof defines an opening having a rim and wherein there is a transparent cover disposed on and supported by the rim.

3. The covered swimming pool shell of claim 1 wherein a deck extends horizontally from one side of the swimming pool.

4. The covered swimming pool shell of claim 3 wherein sides other than the side extending upward and wherein walls extend upward from the deck and wherein the roof is supported on the upward extending deck wall and pool walls.

5. The shell of claim 4 wherein the pool sides, deck walls and roof form a continuous enclosure for the swimming pool.

6. The shell of claim 5 wherein the roof defines an opening having a continuous rim and wherein a trans-parent cupola is supported on the rim.

7. The shell of claim 6 wherein the rim is hollow whereby fluid is circulated through the rim.

8. The shell of claim 7 wherein the rim is hollow and upward from the roof to the cupola and wherein the circulating fluid in the rim is heated.

9. The shell of claim 8 wherein the cupola is hollow, whereby air is circulated in the cupola.

10. The shell of claim 9 wherein the cupola has openings along a first edge thereof for receiving air and wherein openings are provided in a second edge opposite the first edge for expelling air therefrom, wherein the cupola is hinged by connecting the first edge to a corresponding portion of the rim, and wherein the apparatus further comprises means connected to the cupola and to the rim for raising the second edge of the cupola from the rim.

11. The covered swimming pool shell of claim 1 wherein the sides are constructed of wide ribbed metallic sheet material coated with polymeric material.

12. The covered swimming pool shell of claim 1 wherein the roof defines an opening having a rim and further comprising a transparent cover disposed on the rim, hinge means connected to the rim and to the cover along an edge thereof, lifting means connected to the cover and to the roof and spaced from the hinge means, whereby the cover may be raised forming a ventilation slit between the cover and the rim opposite the hinge means, and means for introducing air along a bottom face of the cover adjacent the hinge means, whereby air passes along the bottom face of the cover and out through the ventilation slit.

13. A swimming pool shell intended for use with a major portion underground comprising a pool formed with interconnected sides and a bottom made of sheet material, a deck connected to an upper edge of at least one side and extending outward therefrom laterally away from the pool, at least one of the sides extending upward from the pool, a roof overlying the pool integrally connected to and supported by the upwardly extending sides and an entrance in the shell providing access to the pool.

14. A swimming pool enclosure comprising continuous interconnected sides extending upward from a lower surface of a swimming pool and a roof integrally connected to the sides, thereby forming an enclosure, said roof having an opening and having a rim surrounding said opening and a movable transparent cover disposed on the rim over the opening.

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U.S. Cl. X.R.
4—172,19; 52—169
UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION


Inventor(s) Alfred Korman

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 2, line 13, "dom-shaped", should read -- dome-shaped";
Column 2, line 66, after "required", cancel the comma and insert a period; cancel "in", insert -- In --;
Column 2, line 69, after "cupola" insert -- or --;
Column 4, claim 13, line 6 thereof, "one" should read -- some --.

Signed and sealed this 6th day of April 1971.

(SEAL)
Attest:

EDWARD M. FLETCHER, JR.
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