

- [54] **ROOF FOR SWIMMING POOLS**
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- [58] **Field of Search**..... 4/172, 172.11, 172.12,
4/172.14

[57] **ABSTRACT**

A roof for swimming pools consisting of a plurality of convex, detachable and connectable coverings, the surface of which is tapered in height and width, extending in opposite front and rear faces deflected downwardly and inwardly at the broader end and deflected upwardly and outwardly at the tapered end, and having border strips parallel to the surface of the coverings, provided at the lower and inner edge of the inwardly deflected face and at the upper and outer edge of the outwardly deflected edge, permitting the broader end of the covering and the tapered end of the adjacent covering to be sealed, and permitting the coverings to be piled up when not in use.

- [56] **References Cited**
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2 Claims, 4 Drawing Figures

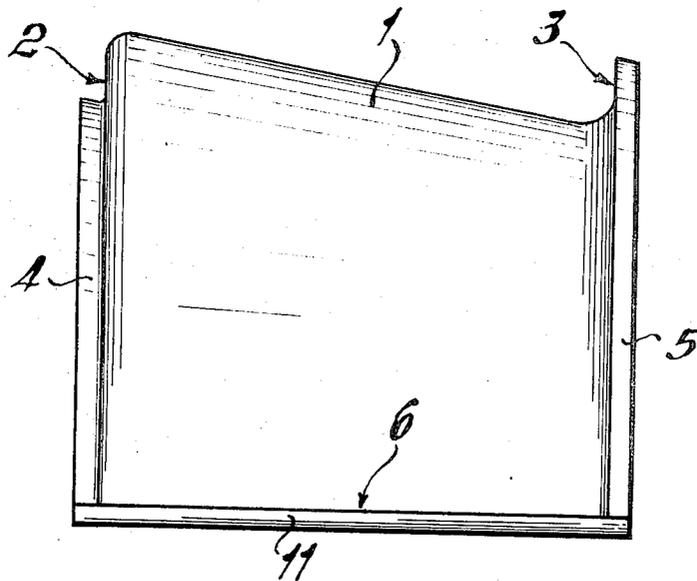


FIG. 1

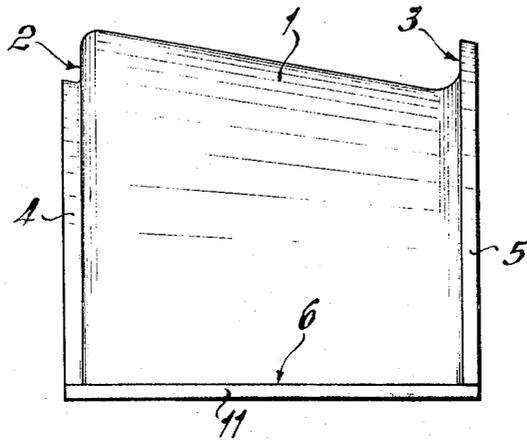


FIG. 2

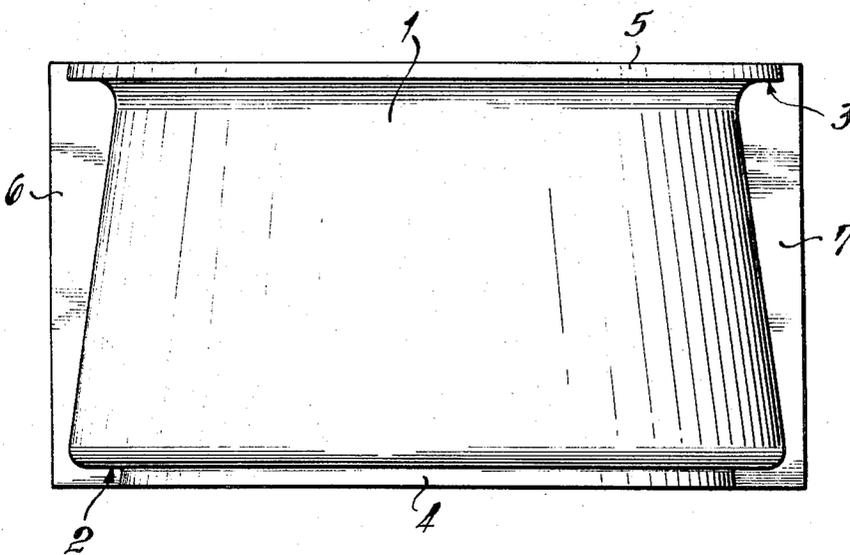


FIG. 3

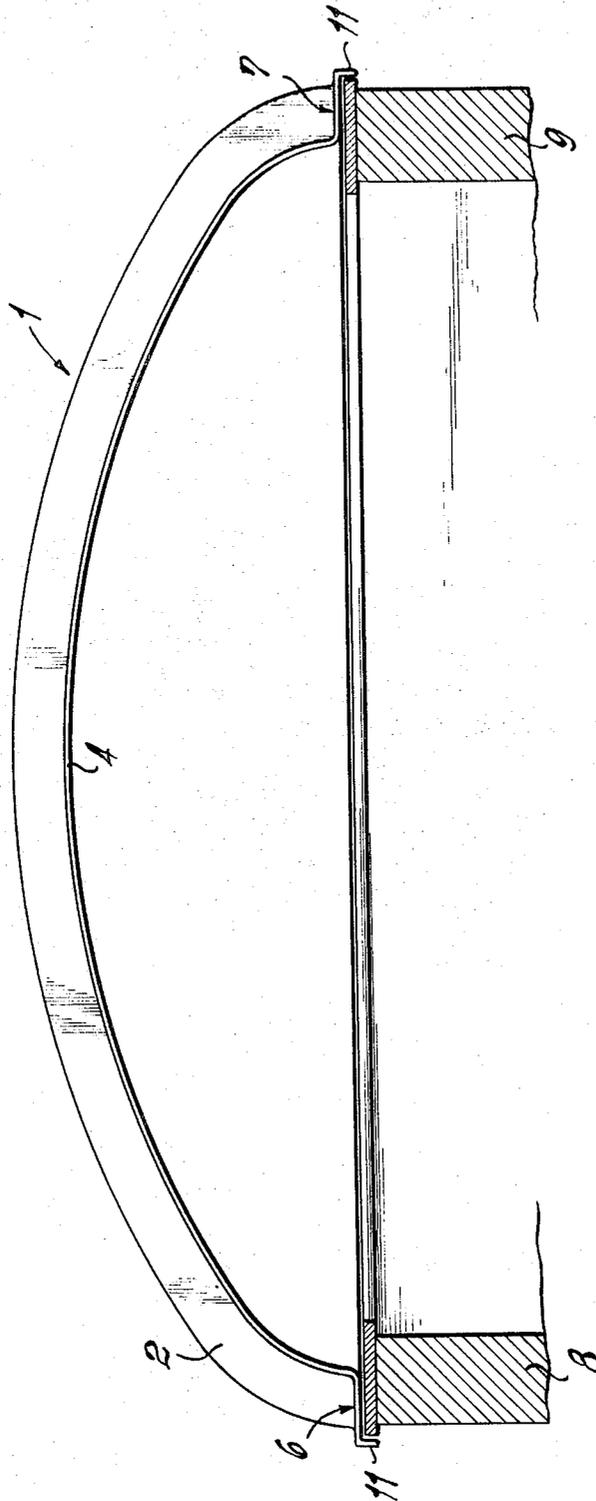
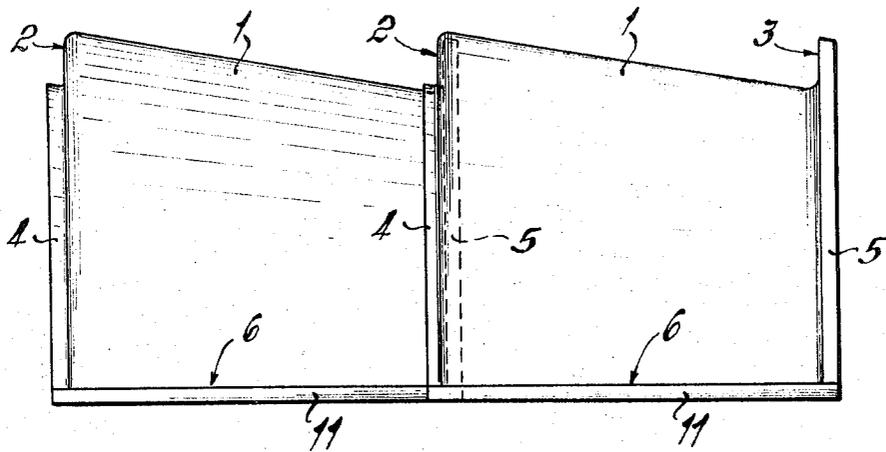


FIG. 4



ROOF FOR SWIMMING POOLS

BACKGROUND OF THE INVENTION

The invention relates to a roof for swimming pools consisting of fiber-reinforced plastic elements.

Swimming pools are becoming more and more common on private property. On the one hand, this creates the need to protect the swimming pool against foreign matter and foliage, particularly in autumn, and to prevent small children from falling unintentionally into the pool when adults are not close to the swimming pool. On the other hand, there is the necessity of being able to use the swimming pool in times when the weather is not good.

It is common practice to cover up swimming pools with glazed bowls which are mounted permanently on the edge of the pool.

This method of construction has the disadvantage that the roof cannot be dismantled when the users would like to swim outdoors in midsummer.

It is also common practice to draw collapsible covers over the swimming pool and roll them up again as required. However, this manner of construction means that the swimming pool has to be bridged by means of carrier supports.

An object of this invention is the provision of a roof for swimming pools which is self-supporting, protects the swimming pool tightly and can be removed easily as required and then stored in a small area.

Another object of this invention is to provide a roof for swimming pools consisting of a plurality of convex, detachable and connectable coverings, the surface of which is tapered in height and width, extending in opposite front and rear faces deflected downwardly and inwardly at the broader end and deflected upwardly and outwardly at the tapered end, and having border strips parallel to the surface of the coverings, provided at the lower and inner edge of the inwardly deflected face and at the upper and outer edge of the outwardly deflected edge.

This structure permits the broader end of the covering and the tapered end of the adjacent covering to be sealed.

Moreover, this structure permits the coverings to be piled up when not in use.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a single covering element incorporating the features of this invention;

FIG. 2 is a top view of a single covering element according to the invention;

FIG. 3 is a front view of the face of a covering in position on the edge of the pool;

FIG. 4 is a side view of two coverings connected to one another.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With particular reference to FIG. 1, the surface 1 which tapers toward one end, is provided at the two opposite ends with faces 2 and 3, one of which 2 is deflected downwardly and inwardly at the broader end and the second of which 3 is deflected upwardly and outwardly at the tapered end.

The downwardly and inwardly deflected face is limited by a border strip 4 projecting in the longitudinal direction and the upwardly and outwardly deflected

face 2 is limited by an outer border strip 5. Both border strips are parallel to the shell of the convex surface 1. The dimensions of the faces 2 and 3 which can be moved together, are such that the top and bottom limits of the faces come to rest at the same distance from the ground surface.

The dimensions of the border strips 4 and 5 have in turn been so selected that in the assembled state the border strip 5 of the outwardly and upwardly deflected face 3 is supported by the broader end of the surface and by the face 2 deflected inwardly at that point, and that the border strip 4 limiting the lower and inner edge of the face 2 is matched to the cross section of the tapered end.

FIG. 4 shows a side view of two coverings which are connected together in that the border strip 4 of the right-hand covering is placed over the face 3 of the left-hand covering with the border strip 5. This means that the two coverings are connected together by being simply overlapped without special screw joints being required for this purpose.

Owing to the fact that the faces are perpendicular to the supporting surface at both ends of the coverings, the individual elements have such great strength and stability that no further support and no metal brackets are required to carry the roof.

FIG. 2 shows the shape of the supporting surfaces 6 and 7 which widen out in the longitudinal direction of the roof in proportion with the extent to which the surfaces 1 taper in height and width.

FIG. 3 shows how the floor surfaces of the coverings resting on the edge of the swimming pool are provided on the outside with downwardly deflected edges 10 and 11.

Glass-fiber-reinforced polyester resin can be used as the material for the covering elements. These elements can be light-transmissive, which affords the advantage that the air under the roof is warmed up even when there is little sunshine. Owing to the fact that the pool is covered up, there is also the result that the rate at which the warm water in the pool cools off, is slowed down by the cushion of air. There is also the advantage that, when the water is warm, condensation forming on the inside of the cover runs back into the pool, thus eliminating water losses as a result of evaporation.

Owing to the statically favourable shape of the self-supporting coverings, the weight is so low that two people can put a roof over a normal-size swimming pool effortlessly and rapidly.

The coinciding shape ensures that the coverings can be piled up in a very small area when the users of the pool would like to swim outdoors in good weather during the summer.

What is claimed is:

1. In a roof for swimming pools made of a plurality of reinforced plastic elements and including coverings disposed in a detachable array; the improvement comprising: a plurality of identical panel elements for placing over the pool in interlocking combination, each panel including a generally arcuate surface with flat end portions for resting on the sides of the pool; said arcuate surface formed at one side with a vertical face turned inwardly to form an overlapping edge, and formed at the other side with a vertical face turned outwardly to form a ridge which fits into the overlapping edge of the adjacent panel element; said arcuate surface having a taper extending from the overlapping

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edge to the vertical face; and downwardly extending edges secured to the flat end portions resting on the edges of the pool.

edges of each of said panel elements are formed with a flat face for securing to an end element when the panels are assembled.

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2. The invention as set forth in claim 1 wherein the

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