Oct. 30, 1962 J. H. LAMB 3,060,455

SWIMMING POOL COVER AND METHOD OF INSTALLING SAME

Filed May 8, 1961

FIG. 1.

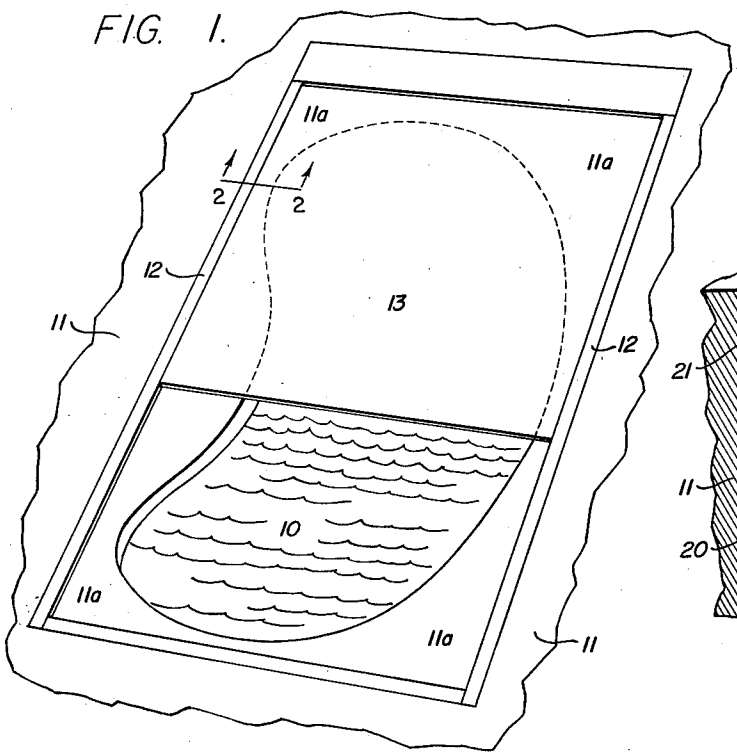


FIG. 3

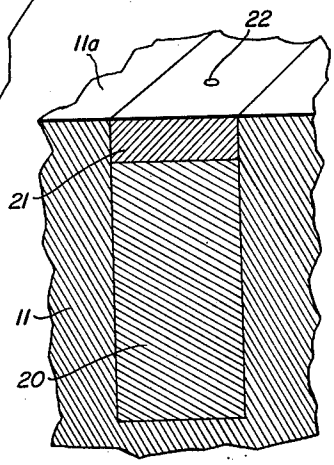


FIG. 2.

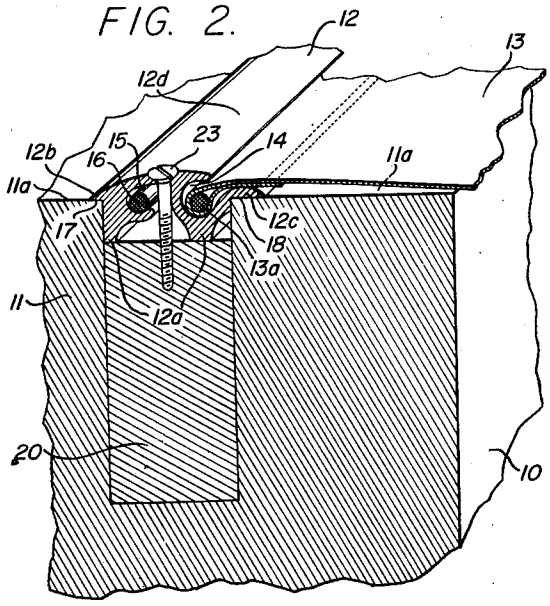
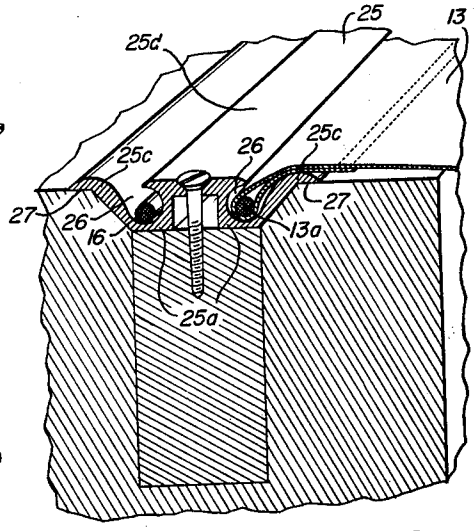


FIG. 4.



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SWIMMING POOL COVER AND METHOD OF INSTALLING SAME

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8 Claims. (Cl. 4—172)

This invention relates to extendable and retractable covers for swimming pools and to methods of installing them. It is particularly concerned with covers of the type shown in my copending patent applications Serial No. 11,737 filed February 29, 1960, now Patent No. 3,051,232, and Serial No. 30,493 filed May 20, 1960, which was abandoned and replaced by a continuation-in-part application, Serial No. 129,881, filed August 7, 1961, now Patent No. 3,050,743.

Swimming pool covers of this type utilize extruded metal strips along the sides of the pool as anchoring slideways for thickened edges of the cover sheet and as return conduits for draw cords used in extending and retracting such cover sheet relative to the surface of the pool.

Many swimming pools are of irregular configuration, which means that these rectilinear carrier strips cannot follow the pool margins, but must be installed sufficiently far back on the deck area to comprehend the entire pool and still be parallel with each other. This has made for difficulty in anchoring the strips and has resulted in harmful abrasion of the cover sheet by contact with covered portions of the deck area during extension and retraction.

Principal objects of the present invention were to overcome these difficulties without unduly encumbering the deck area and without undue expense.

A feature in the accomplishment of these objects is the sinking of the greater part of the heights of such carrier strips below the deck surface and the provision in the carrier strips themselves of laterally extending trackway portions overlapping the deck surface and serving as slideways to support the cover sheet in its movement longitudinally thereof.

Unobtrusive installation of such carrier strips in the deck is effectively accomplished by placing pieces of two-by-four lumber, surmounted by removable gauge strips, end to end along the carrier strip locations in the deck area prior to final pouring of concrete in place, the top surfaces of the gauge strips being placed at the desired level of the deck surface. When the deck is in place, it is only necessary to remove the gauge strips and drop the carrier strips in the resulting recesses, screwing or otherwise tightly fastening them to the underlying lumber pieces.

Specific embodiments representing what are presently regarded as the best modes of carrying out the invention are illustrated in the accompanying drawings.

In the drawings:

FIG. 1 represents a view in top perspective of a swimming pool cover installation conforming to the invention;

FIG. 2, a fragmentary vertical section taken on the line 2—2 of FIG. 1 and drawn to a considerably larger scale;

FIG. 3, a corresponding view but illustrating the installation procedure prior to placement of the carrier strips; and

FIG. 4, another corresponding view but taken with respect to a somewhat different embodiment of carrier strip.

Referring to the drawings:

The swimming pool **10** in FIG. 1 is of kidney shape, which typifies the irregularity of configuration for which

the invention is intended. It is surrounded by the usual deck **11**, here shown as being entirely of concrete.

Rectilinear carrier strips **12** for anchoring, supporting, and guiding the travel of extendable and retractable cover sheet **13** are installed in mutually parallel relationship on deck **11** along opposite sides of the pool, their spacing being such as to comprehend and cover the entire pool area. Portions of the deck surface **11***a* are of necessity included in the sweep of cover sheet **13**, as illustrated, because of the irregular configuration of the pool.

The carrier strips **12** are advantageously extruded aluminum strips each configurated to provide a longitudinally open channel **14** for receiving and retaining a beaded or thickened edge **13***a* of the cover sheet and for enabling such cover sheet to slide therealong during extension and retraction by suitable mechanism (not illustrated). In the particular form illustrated, each carrier strip **12** has a similar channel **15**—open internally of the strip—for accommodating the draw cord **16**, which extends from the beaded edge of the cover sheet, as a longitudinal prolongation thereof, loops about a pulley (not shown) at the end of the strip, and acts with its companion draw cord at the opposite side of the pool to extend the cover sheet when pulled by the aforesaid mechanism.

The lower portion **12***a* of the carrier strip **12**, extending throughout the greater part of the height of such carrier strip, is formed for insertion in a suitable receiving recess in the deck and is overhung by longitudinal lip portions **12***b* and **12***c* projecting outwardly from opposite lateral sides of the strip.

For the sake of appearance and surface integrity, the lip portion **12***b* is formed as one lateral terminus of a gently sloping top portion **12***d* of the strip. The opposite lip portion **12***c* partially defines the longitudinal opening or slit of cover-receiving channel **14** and extends outwardly to form a cover-supporting trackway which is slightly raised above the deck surface when the strip is installed. Its upper surface is preferably rounded, as shown, to minimize friction. The lower surfaces **17** and **18** of both lips are formed as flat gauge faces for fitting in close face-to-face engagement with the deck surface **11***a* when the carrier strips are set in their receiving recesses in the deck **11**.

The method of the invention involves establishing a deck area around the pool and placing anchoring strips **20**, advantageously pieces of two-by-four lumber set edgewise as indicated in FIG. 3 and aligned end-to-end, along carrier strip locations in the deck area. Any suitable base for such deck area may be built up prior to the pouring of concrete for the deck proper.

In order to provide recesses of proper depth for installation of the carrier strips and properly place the anchoring strips **20** relative to the latter, gauge strips **21** are placed on top of such anchoring strips prior to placement of the latter. They are advantageously wood strips temporarily secured to the anchoring strips, as by light nails **22**, FIG. 3. Such gauge strips have a thickness equal to the desired depth of recessing of the carrier strips, in this instance being equal to the thickness of the lower portion **12***a* of a carrier strip.

The combined anchoring and gauge strips are placed in the deck **11** so that the upper face or top of the gauge strips are flush with the deck surface **11***a*, this being advantageously accomplished by sinking such strips in freshly poured concrete and adjusting the level during troweling or other finishing of the deck surface.

When the concrete has set, the gauge strips **21** are removed and replaced by the carrier strips **12**, which are fastened to the anchoring strips **20** by any suitable means, desirably by screws **23** passed through suitable receiving openings in the carrier strips and screwed into the wood anchoring strips.

The embodiment of FIG. 4 is similar to that just described except for the formation of the carrier strip, which is here designated **25**. This carrier strip corresponds in its configuration to one disclosed in my aforereferred-to copending application Serial No. 11,737. It has corresponding, outwardly flared lips **25***c* at both lateral sides of the strip and corresponding, longitudinally open, slideway channels **26** for the thickened edge **13***a* of the pool cover sheet **13** and for the draw cord **16**, respectively. The undersurfaces **27** of such lips are flat and serve in face-to-face relationship with the deck surface as gauge faces. The recessed portion **25***a* is outwardly flared, being largely a part of the outwardly flared lips. The upper surface **25***d* is flat and smooth and lies at approximately the same level as pool cover sheet **13**, being substantially similar to the foregoing embodiment in this respect. Installation is aforedescribed, the particular gauge strips utilized conforming in configuration, however, to the under configuration of the recessed portions **25***a* of the carrier strips **25** so the resulting recesses will accommodate the latter.

I claim:

1. In extendable and retractable cover apparatus for a swimming pool having a flat deck marginal to the pool, said apparatus including a pool cover sheet having thickened longitudinal edges and means for extending and retracting said cover sheet, carrier strips recessed in the deck in mutually parallel relationship at opposite sides of the pool, each of said carrier strips having a longitudinally open channel facing the pool for receiving and retaining a thickened edge of the cover sheet, and a laterally projecting, extended, longitudinal lip partially defining the longitudinal opening of the channel and extending outwardly from said opening to form an extended trackway for supporting the cover sheet above the deck surface and for facilitating longitudinal sliding movement thereof; and means securing the carrier strips in their recessed relationship with the deck.

2. The structure recited in claim 1, wherein the lower surface of the lip is formed as a gauge face which fits against the deck surface, and there is provided an oppositely projecting lip along the opposite side of the carrier strip whose lower surface is formed as a corresponding gauge face which fits against the deck surface.

3. The structure recited in claim 2, wherein the top of the carrier strip is broad and substantially flat and smooth and at substantially the level of the cover sheet.

4. The structure recited in claim 1, wherein the deck is provided with recessing channels for the carrier strips, said recessing channels being significantly deeper than the recessed portions of said strips; wherein anchoring strips are disposed in said channels, filling them to proper recess depth; and wherein the means securing the carrier strips are fastening elements attaching said carrier strips to said anchoring strips.

5. The structure recited in claim 4, wherein the anchoring strips are pieces of two-by-four lumber placed edgewise and the fastening elements are screws passed through the carrier strips and screwed into the lumber.

6. The structure recited in claim 4, wherein the means for extending and retracting the pool cover sheet includes draw cords, and wherein each carrier strip is formed with a second channel internally thereof accommodating a draw cord, said channel being longitudinally open internally of the recessing channel.

7. A method of installing an extendable and retractable swimming pool cover apparatus which includes internally parallel carrier strips at opposite sides of the pool for receiving, retaining, and guiding movement of a pool cover sheet, comprising establishing a deck area about the pool; placing anchoring strips along carrier strip locations in the deck area so that the top surfaces thereof are below deck surface level a distance equal to a desired recessing depth for the carrier strips; placing gauge strips on top of said anchoring strips, said gauge strips having a thickness equal to said desired recessing depth; pouring concrete in said deck area and finishing off the deck surface flush with the top surfaces of said gauge strips; removing the gauge strips; inserting the carrier strips in place of the gauge strips; and fastening the carrier strips to the underlying anchoring strips.

8. The method of claim 7, wherein the gauge strip is temporarily secured to the anchoring strip prior to placement of either; and wherein placement is carried out by setting said strips in freshly poured concrete and adjusting the level during surface finishing of said concrete.

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