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(54) **Mounting assembly for a reservoir in particular a swimming pool and mounting process thereof**

Montageanordnung für einen Behälter insbesondere ein Schwimmbad und Montageverfahren dafür

Ensemble de montage pour réservoir en particulier une piscine et son procédé de montage

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Description

Technical field

[0001] The present embodiment relates to a mounting assembly for a reservoir which may be a swimming pool by way of example.

Background art

[0002] Currently there are many systems for the construction of reservoirs using metal, wood and concrete. However, each building system has limitations arising from the characteristics of the materials used. Indeed, the use of wood involves rapid wear as well as high investment costs inherent to the maintenance of such system. With regard to metal and concrete, although being advantageous in terms of maintenance, sealing and stability, the main disadvantage is related to the aesthetics of the assembly which, given the intended end - use for bathing - and its implementation - gardens, terraces, among others - hardly merge with the surrounding environment.

[0003] EP 2 460 950 A2 presents a structure of prefabricated elements and fixtures, process for obtain and use thereof. The structure consisting of mortar elements and metal fixtures is an innovation compared to existing building systems. However, it does not present a simplified attachment of the pillars simultaneously with the inner impermeable and flexible coating of the reservoir.

[0004] In this sense, the present embodiment proposes overcoming the above difficulties and those associated with transportation, storage, resistance to shock, elongation and mounting of this type of structure.

Summary

[0005] The present invention is defined by the technical features of claim 1. The connection profile (21) included in the mounting assembly for a reservoir, is a single piece having a U-shaped recessed section (24) for the laying of the anchoring profile (19, 20) by means of mechanical connection on the attachment points (26, 27) .

[0006] In another preferred embodiment, the pillars (1, 2) included in the mounting assembly for a reservoir have arched edges.

[0007] Still in another preferred embodiment, the mounting assembly for a reservoir has an attachment point for the arrangement of a cover (40).

[0008] In a preferred embodiment, the mounting assembly for a reservoir presents a set of border segments (14, 15, 16, 17) placed on the upper part of the swimming pool perimeter with an arrangement adapted to the perimeter angle of the swimming pool, which may be strait, in angle, to the stairs on the left and to the stairs on the right.

[0009] In another preferred embodiment the beams (7, 8, 10, 11, 12) included in the mounting assembly for a reservoir have a tongue and groove fitting (32, 31).

[0010] Still in another preferred embodiment, the mounting assembly for a reservoir further comprises:

- a beam for reflux devices (12) with a hole (35);
- a beam for the arrangement of a skimmer attachment panel (13) having a hole (35).

[0011] The present invention further discloses a process for the mounting of a reservoir as defined by claim 7, comprising the following steps:

- preparing and levelling the ground;
- placing of the laying model (25) directly on the ground;
- placing of the pillars (1, 2) at the points marked on the laying model (25);
- fixing the pillars (1, 2) to the concrete slab by means of mechanical connection;
- mechanical connection of the metal guides (6) to the ground between each metal profile, onto the base of the pillar (1, 2) and laying of the first row of stackable beams, whose ends will fit into the slot (29) of the metal profile (3,4);
- fixing of the connection profile (21) to the tabs on the top of the pillar (1, 2) by means of mechanical connection of the attachment points (27) of the tab and attachment points (39) of the connection profile (21);
- placing of the second and subsequent rows of stackable beams;
- placing the anchoring profile (19, 20) grounded on the recessed section (24) of the supporting profile;
- placing of beams for the right and left skimmer (10, 11);
- gluing of the border (14, 15, 16, 17) to the connection profile (21) of the pillars (1, 2).

[0012] In a preferred embodiment, laying the first row of beams in the mounting process of a reservoir includes the groove fitting of the beam (31) being embedded into the tongue fitting of the guide (30).

[0013] In another preferred embodiment of the mounting process of a reservoir, an attachment panel is affixed for the attachment of the skimmer by means of inserting the groove fitting of the skimmer attachment panel into the tongue fitting of the beam.

[0014] In yet another preferred embodiment of the mounting process of a reservoir assembly a metal sheet is unfolded (36) inside the reservoir and is attached by mechanical connection.

[0015] In a preferred embodiment of the mounting process of a reservoir assembly, mirrors (37) are additionally arranged on the base of the pillars (1, 2).

Overview

[0016] The present embodiment describes a mounting assembly for a reservoir mountable to the ground sur-

face, or for wholly or partially burying thereof, consisting of beams (7, 8, 9, 10, 11, 12) stacked together. The present assembly has an adaptively laying model (25) comprising markings of exact location for the attachment of pillars (1, 2), metal pillars (1, 2) of tubular section, with tabs at the top and bottom (22, 23), a profile (21) able to simultaneously receive the anchoring profile (19, 20) for the waterproof and malleable pouch, a border (14, 15, 16, 17) and end beam (9), mirrors (37) and a metal sheet (36).

Brief description of the drawings

[0017] For an easier understanding of the art, drawings are herein attached which represent preferred embodiments which, however, are not intended to limit the scope of the present art.

Figure 1 shows an overview of the mounting assembly for a reservoir, wherein reference numbers correspond to:

1 - pillar;

2 - pillar;

3 - metal profile;

4 - metal profile;

7 - beam;

8 - beam;

10 - beam;

11 - beam;

12 - beam;

13 - skimmer attachment panel;

14 - border;

15 - border;

16 - border;

17 - border;

19 - anchoring profile;

21 - profile;

22 - tab on top of the pillar;

23 - tab on the base of the pillar;

25 - laying model;

26 - attachment point;

36 - metal sheet;

37 - mirror.

Figure 2 shows an overview of the several elements of the mounting assembly of a reservoir, wherein reference numbers correspond to:

1 - pillar;
2 - pillar;
3 - metal profile;
4 - metal profile;
5 - finishing profile;
6 - guide;
7 - beam;
8 - beam;
10 - beam;
11 - beam;
12 - beam;
13 - skimmer attachment panel;
14 - border;
15 - border;
16 - border;
17 - border;
19 - anchoring profile;
20 - anchoring profile;
21 - profile;
24 - recessed section;
26 - attachment point;
27 - attachment point;
34 - tongue fitting of skimmer attachment panel;
37 - mirror;
39 - attachment points of the connection profile to the top tab of the pillar
40 - attachment point for the cover.

Figure 3 shows a perspective view of the right pillar, wherein reference numbers correspond to:

2 - pillar;
3 - metal profile;
5 - finishing profile;
22 - top tab of the pillar;
23 - bottom tab of the pillar;
26 - attachment point;
27 - attachment point;
29 - slot.

Figure 4 illustrates a perspective view of the angled pillar, wherein reference numbers correspond to:

1 - pillar;
4 - metal profile;
5 - finishing profile;

22 - top tab of the pillar;
26 - attachment point;
27 - attachment point.

Figure 5 shows a perspective view of the angled pillar elements, wherein reference numbers correspond to:

1 - pillar;
4 - metal profile;
5 - finishing profile;
22 - top tab of the pillar;
26 - attachment point;
27 - attachment point.

Figure 6 shows a section detail view of a pillar flanked by beams, wherein reference numbers correspond to:

1 - pillar;
6 - guide;
7 - beam;
8 - beam;
30 - tongue fitting of the guide.

Figure 7 shows a section detail view of a pillar flanked by beams, wherein reference numbers correspond to:

1 - pillar;
9 - beam;
15 - border;
19 - anchoring profile;
24 - recessed section;
36 - metal sheet.

Figure 8 shows a detail of a beam, wherein reference numbers correspond to:

12 - beam;
31 - groove fitting;
32 - tongue fitting;
35 - hole.

Figure 9 shows an overall perspective view of the mounting assembly for a reservoir, wherein reference numbers correspond to:

2 - pillar;
3 - metal profile;
5 - finishing profile;
8 - beam;
21 - Profile;
22 - top tab of the pillar;
23 - base of the pillar;
26 - attachment point;
27 - attachment point;
29 - slot;
39 - attachment point of the profile to the top tab of the pillar

Detailed description of a preferred embodiment

[0018] The present embodiment discloses a mounting assembly for a reservoir whose laying model (25) has markings on the exact location for the attachment of pillars (1, 2), joined at the base by a guide (6), on which respective beams (7, 8, 9, 10, 11, 12) are arranged and stacked together, said assembly being tight-fitted and immobilized by means of a connection profile (21) adapted and able to simultaneously receive the anchoring profile (19, 20) for the waterproof and malleable pouch, border (14, 15, 16, 17) and end beam.

[0019] The present embodiment comprises a set of parts whose orderly and sequential mounting allows obtaining a reservoir which could be, by way of example, a swimming pool.

[0020] One of the elements composing the assembly is the laying model (25) with an adapted form, which is intended to be placed directly onto the ground, which has been previously stabilized and levelled, such as a concrete slab. Subsequently to the correct placement thereof on the ground, the laying model (25) accurately identifies the location of the different pillars (1, 2), thus reducing the margin of error in the arrangement thereof during levelling and vertical setting.

[0021] The assembly is further composed of pillars (1, 2), preferably made of metallic material, with tabs at the top and bottom (22, 23). The arrangement of the pillar (1, 2) of tubular section, constant over the pillar (1, 2) as a single piece, does not lack capping devices at the top, connecting devices for the border (14, 15, 16, 17) or fitting devices for the base thereof to connect to the concrete slab, thus simplifying the mounting process of the swimming pool. The pillar comprises arched edges, thus reducing the risk of damage on shipping or in case of shock. In addition, since being a single piece without joints, it optimizes the stability of the structure, reducing clearances and movement of the various structural components, given the lack of grips to be held or mounting pillar parts (1, 2).

[0022] The exclusion of the number of structure components and the increased speed and precision in mounting the assembly, are novelty features when compared to existing building systems. Levelling and vertical setting of the pillars (1, 2) are more easily obtained, allowing for a faster mounting of the reservoir, given the higher fitting accuracy of the elements among themselves. In factory, due to the tubular configuration, manufacturing the pillar (1, 2) becomes easy, with savings in terms of mounting times and consequent costs. Storage, packaging and transportation are also facilitated, given the shape thereof, thus allowing an optimization thereof. The absence of sharp edges and protrusions on the surface of the pillar (1, 2) allows an uniform attachment along the pillar (1, 2) of a metal profile (3, 4), in factory, by mechanical con-

nection, preferably by screws, contrary to what usually occurs with pillars (1, 2) made of concrete and stony materials, since they do not assure a perfectly smooth surface. A finishing profile (5) may also be added along the profile 3 or 4 in order to conceal the screws which allow the attachment of the profile to the pillar. By using metal pillars (1, 2), the reservoir becomes lighter, thus making the transportation of assembly parts and the appropriate mounting work thereof easier. The pillars (1, 2) made of metallic material have a higher elasticity when compared to those made of concrete or stone material, as well as provides greater mechanical resistance against shock.

[0023] The pillars (1, 2) have tabs (22, 23) in their respective ends with holes for the attachment to the concrete slab and for the attachment to the connection profile (21), respectively. The pillar (1, 2), subsequently to the fixation of the metal profile (3, 4) in factory, is intended to guide the successive stacked beams (7, 8, 9, 10, 11, 12), by means of the slot (29) present along the profile (3, 4).

[0024] The present embodiment shows a connection profile (21) between the pillars (1, 2) and for the attachment of the anchoring profile (19, 20) for the waterproof and malleable pouch. This connection profile (21) has an adapted shape and a U-shaped recessed section (24) enabling the seating of the anchoring profile (19, 20) for the attachment of the waterproof and flexible pouch. It is presented as a single piece, and allows the connection of several structural elements among themselves: it connects the several pillars (1, 2); it is the laying base for the border (14, 15, 16, 17); it allows fitting the top beam, creating a supportive assembly, thus increasing the robustness and stability of the final assembly. It has attachment points (39) to the top tab of the pillar (1, 2) the points being used for the attachment of the profile to the pillars (1, 2) by mechanical connection, for example by introducing a screw and retaining washer on the attachment points (27). It also provides an attachment point for applying a cover (40).

[0025] In addition to the elements listed above, the assembly is also composed of different types of beams (7, 8, 9, 10, 11, 12) and border (14, 15, 16, 17) which may be, by way of example, made of mortar and present a type deck finishing.

[0026] The manufacture of the elements in the mortar assembly begins with the preparation of mortar, being subsequently poured into moulds of suitable configuration. Subsequently to the drying time, the elements are removed from the mould and are ready to be assembled.

[0027] The beams (7, 8, 10, 11, 12) have a groove and tongue fitting (32, 31), except for the top beam (9).

[0028] The assembly provides a beam for reflux devices (12) with a hole (35) for several accessories, as well as a beam for applying a skimmer attachment panel (13), which is preferably made of metal material, with a hole (35) for the introduction of the skimmer, provided with a tongue and groove fitting system (32, 31) similar to and compatible with that of the beams.

[0029] The anchoring profile (19, 20) for the attachment of a waterproof and malleable pouch consists of polymeric material having a cavity for the attachment of a covering.

[0030] The assembly also presents a set of border segments (14, 15, 16, 17) arranged on the upper part of the swimming pool perimeter, and which have a design adapted to the angle of the swimming pool perimeter, which may be straight or in angle to the stairs on the left and to the stairs on the right.

[0031] Mounting the parts comprising the assembly begins with arranging the laying model (25) directly onto the ground, previously prepared and levelled, such as a concrete slab, followed by placement of the abutments (1, 2) at the points marked on the laying model (25). The attachment of the pillars (1, 2) to the concrete slab is carried out by mechanical connection, for example by introducing bushing screws, at the attachment points (26) of the base tab of the pillar (1, 2). Subsequently, the guide (6) is screwed to the concrete slab between each metal profile at the base of the pillar (1, 2). Subsequently, the laying of the first row of beams is carried out, the ends of which will fit into the slot (29) of the metal profile, bearing in mind that in the first row the groove fitting of the beam shall embed in the tongue fitting of the guide (30).

[0032] This is followed by the attachment of the connection profile (21) to the top tabs of the pillar (1, 2) by inserting screws and retaining washers in the attachment points (27) of the tab and in the attachment points of the profile. This operation creates a locking strap around the entire perimeter of the reservoir, thus enhancing the stability of the structure.

[0033] The mounting of the assembly continues with the placement of the second and following rows of beams, taking into account that the groove fitting of the beam must fit into the tongue fitting of the beam. In the last row, the end beam is arranged.

[0034] Subsequently, the placement of anchoring profile (19, 20) for the attachment of the waterproof malleable pouch is carried out along the top perimeter thereof, based on the recessed section (24) of the supporting profile.

[0035] The placement of swimming pool filtering material, such as the designated skimmer, is provided by right and left skimmer beams (10, 11), whose arrangement follows the mounting logic of the beams mentioned above. In the interval between the left and right skimmer beams, the skimmer attachment panel (13) is arranged and attached by means of the groove fitting of the skimmer attachment panel that will fit the tongue fitting on the beam. The tongue fitting of the skimmer attachment panel (34) allows a fitting under the supporting profile.

[0036] The border (14, 15, 16, 17) is subsequently glued to the connection profile (21) of the pillars (1, 2) and other water filtration or circulation equipment is arranged, using the hole (35) for additional attachments of a drilled beam. In order to evenly distribute stress exerted by the water and to smooth the interior of the swimming

pool, a metal sheet (36) is unfolded and attached by mechanical connection, preferably by screws.

[0037] Finally, the reservoir is lined with a waterproof and malleable pouch, fixed by fitting onto the cavity provided for the purpose on the anchoring profile (19, 20). Mirrors (37) are finally arranged at the base of the pillars (1, 2), thereby concealing the visible screws used for the attachment of the pillar (1, 2) to the concrete slab.

[0038] The present invention is obviously not restricted in any way to the embodiments herein described and a person of ordinary skill in the art may provide many possibilities to modifications thereof without departing from the scope of the present invention defined by the appended claims.

Claims

1. Mounting assembly for a reservoir mountable to the ground surface or for fully or partially burying thereof, consisting of pillars (1,2) and stackable beams (7, 8, 9, 10, 11, 12), whereby each pillar (1, 2) has a metal profile (3, 4) screwed along his surface intended to guide the successive stacked beams (7, 8, 9, 10, 11, 12), by means of a slot (29) present along said metal profile (3, 4), said pillars (1,2) also include tabs at the top and bottom (22, 23) thereof, metal guides (6) screwable to a concrete slab between each said metal profile (3, 4), joining the base of the pillars (1, 2) said assembly being tight-fitted and immobilized by means of a connection profile (21) mounted to the top tabs of the pillars (1, 2) and a metal sheet (36) attachable to the inside of the reservoir, **characterized in that**:

   - said connection profile (21), being a single piece, with a U-shaped recessed section (24) for simultaneously receiving an anchoring profile (19, 20) for the waterproof malleable pouch, a border (14, 15, 16, 17) and stacked end beam (9), by means of mechanical connection in attachment points (39) along the top perimeter thereof;

   the mounting assembly further comprises a mirror (37), and

   - a laying model (25) with markings of exact location for the attachment of pillars (1, 2) by inserting screws and retaining washers in attachment points (27) of the tabs and in the attachment points (39) of the connection profile (21).

2. Mounting assembly for a reservoir according to the previous claim, wherein the pillars (1, 2) have arched edges.

3. Mounting assembly for a reservoir according to any of the preceding claims, wherein a point of attachment is provided for the arrangement of a cover (40).

4. Mounting assembly for a reservoir according to any of the preceding claims, wherein a set of border segments (14, 15, 16, 17) is provided, placed on the upper part of the swimming pool perimeter with a design adapted to the perimeter angle of the swimming pool, which may be straight, in angle, to the stairs on the left and stairs on the right.

5. Mounting assembly for a reservoir according to any of the preceding claims, wherein the beams (7, 8, 10, 11, 12) have a tongue and groove fitting (31, 32).

6. Mounting assembly for a reservoir according to any of the preceding claims, wherein it further comprises:

   - a beam for reflux devices (12) with a hole (35);
   - a beam for the arrangement of a skimmer attachment panel (13) having a hole (35).

7. Process for mounting a reservoir assembly comprising the mounting assembly according to any of claims 1 to 6 comprising the following steps:

   - preparing and levelling the ground;
   - placing of the laying model (25) directly onto the ground;
   - placing of the pillars (1, 2) at the points marked on the laying model (25);
   - fixing the pillars (1, 2) to the concrete slab by means of mechanical connection;
   - mechanical connection of the metal guides (6) to the ground between each metal profile (3, 4), onto the base of the pillar (1, 2) and laying of the first row of stackable beams, whose ends will fit into the slot (29) of the metal profile (3,4),
   - attaching of the connection profile (21) to the tabs on the top of the pillar (1, 2) by means of mechanical connection on the attachment points (27) on the tab and attachment points (39) of the connection profile (21);
   - placing of the second and subsequent rows of stackable beams;
   - placing the anchoring profile (19, 20) grounded on the recessed section (24) of the supporting profile;
   - placing of beams for the right and left skimmer (10, 11);
   - gluing of the border (14, 15, 16, 17) to the connection profile (21) of the pillars (1, 2).

8. Process for mounting a reservoir assembly according to the preceding claim, wherein in the laying of the first row of beams, a groove fitting (31) of the beam will embed in a tongue fitting (30) of the metal guide (60).

9. Process for mounting a reservoir assembly according to any claims 7 and 8, wherein a panel for the attachment of a skimmer is attached by means of a groove fitting of the skimmer attachment panel, which will fit a tongue fitting of the beam.

10. Process for mounting a reservoir assembly according to any claims 7 to 9, wherein the metal sheet (36) is unfolded inside the reservoir and which is fixed by mechanical connection.

11. Process for mounting a reservoir assembly according to any claims 7 to 10, wherein the mirrors (37) are arranged at the base of the pillars (1, 2).

Patentansprüche

1. Montageanordnung für einen Behälter montierbar zur Bodenoberfläche oder ganz oder teilweise davon vergraben, bestehend aus Säulen (1, 2) und stapelfähigen Balken (7, 8, 9, 10, 11, 12), wobei jede Säule (1, 2) ein Metallprofil (3, 4) hat, das entlang seiner Oberfläche geschraubt ist und beabsichtigt, die aufeinanderfolgenden gestapelten Balken (7, 8, 9, 10, 11, 12) zu führen, durch einen Schlitz vorhanden entlang genanntem Metallprofil (3, 4), wobei die genannte Säulen (1, 2) auch oben und unten (22, 23) Laschen, Metallführungen (6) schraubbar auf einer Betonplatte zwischen jedem der Metallprofile (3, 4), die die Basis der Säulen (1, 2) verbinden, umfassen, wobei die Anordnung mittels eines Verbindungsprofils (21) festgesetzt und immobilisiert ist, das an den oberen Laschen der Säulen (1, 2) angebracht ist, und ein Metallblech (36) anbringbar an die Innenseite des Vorratsbehälters, **dadurch gekennzeichnet dass**

- das genannte Verbingungsprofil (21) einstückig ist mit einem U-förmigen ausgesparten Abschnitt (24) zum gleichzeitigen Aufnehmen eines Verankerungsprofils (19, 20) für den wasserdichten formbaren Beutel, eines Randes (14, 15, 16, 17) und eines gestapelten Endbalkens (9) durch mechanische Verbindung in Verbindungspunkten (39) entlang dem davon oberen Umfang

wobei de Montageanordnung ferner umfasst:

- ein Spiegel (37) und ein Verlegungsmodell (25) mit Markierungen, die den genauen Ort zur Befestigung der Säulen (1, 2) zeigen, durch Einführungen von Schrauben und Sicherungsscheiben in Verlegungspunkte (27) der Platten und in die Verlegungspunkte (39) des Verbindungsprofils (21)

2. Montageanordnung für einen Behälter gemäß dem vorigen Anspruch, wobei die Säulen (1, 2) gebogene Kanten haben.

3. Montageanordnung für einen Behälter gemäß einer der vorigen Ansprüche, wobei ein Verlegungspunkt für die Festsetzung einer Schutzhaube vorhanden ist (40).

4. Montageanordnung für einen Behälter gemäß einer der vorigen Ansprüche, wobei ein Randsegmentset (14, 15, 16, 17) vorhanden ist, der auf das oberste Teil des Schwimmbeckenperimeters gestellt ist, wobei das Design dem Eckenperimeter des Schwimmbeckens angepasst ist, was gerade, gebogen, den Treppen links und den Treppen rechts gerichtet ist.

5. Montageanordnung für einen Behälter gemäß einer der vorigen Ansprüche, wobei die Balken (7, 8, 9, 10, 11, 12) eine Nut und Feder Verbindung (31, 32) haben.

6. Montageanordnung für einen Behälter gemäß einer der vorigen Ansprüche, wobei sie Folgendes umfasst:

- ein Balken für Rücklaufgeräte (12) mit einem Loch (35);
- ein Balken für die Festsetzung eines Skimmerverlegungspaneels (13) mit einem Loch (35).

7. Prozess für die Montage einer Behälteranordnung umfassend die Montageanordnung gemäß einer der Ansprüche 1 bis 6, der die folgenden Schritte umfasst:

- Vorbereitung und Planierung des Bodens;
- Stellung des Verlegungsmodells (25) direkt auf den Boden;
- Stellung der Säulen (1, 2) an die Punkte, die auf dem Verlegungsmodell (25) markiert sind;
- Befestigung der Säulen (1, 2) in den Betonsockel durch mechanische Verbindung;
- mechanische Verbindung der Metallführungen (6) in den Boden zwischen jedes Metallprofil (3, 4), an den Grund der Säule (1, 2) und Verlegung der ersten Reihe von stapelfähigen Balken, dessen Enden in der Nut (29) des Metallprofils (3, 4) eingreifen;
- Zusammensetzung des Verbindungsprofils (21) an die Platten an der Spitze der Säulen (1, 2) durch mechanische Verbindung an den Verlegungspunkten (27) an der Platte und Verlegungspunkten (39) des Verbindungsprofils (21);
- Stellung der zweiten und folgenden Reihen von stapelfähigen Balken;
- Stellung des Ankerprofils (19, 20), das an der aussparenden Abteilung (24) des Unterstüt-

zungsprofils gestützt ist;
- Stellung der Balken für den rechten und linken Skimmer (10, 11);
- Kleben der Ränder (14, 15, 16, 17) an das Verbindungsprofil (21) der Säulen (1, 2).

8. Prozess für die Montage einer Behälteranordnung gemäß dem vorigen Anspruch, wobei beim Verlegen der ersten Reihe von Balken eine Nutverbindung (31) des Balkens in die Federverbindung (30) der Metallführung (6) eingebettet wird.

9. Prozess für die Montage einer Behälteranordnung gemäß einer der Ansprüche 7 und 8, wobei ein Paneel für die Festsetzung eines Skimmers durch die Nutverbindung des Skimmerverlegungspaneels festgesetzt ist, das eine Federverbindung des Balkens anpassen wird.

10. Prozess für die Montage einer Behälteranordnung gemäß einer der Ansprüche 7 bis 9, wobei das Metallblech (36) innerhalb des Behälters entfaltet und welches durch mechanische Verbindung befestigt ist.

11. Prozess für die Montage einer Behälteranordnung gemäß einer der Ansprüche 7 bis 10, wobei die Spiegel (37) an den Grund der Säulen (1,2) angeordnet sind.

Revendications

1. Ensemble de montage pour un réservoir, assemblable à la surface du sol ou entièrement ou partiellement y enterré, composé par des poteaux (1, 2) et des traverses empilables (7, 8, 9, 10, 11, 12), dont chaque poteau a un profilé métallique (3, 4) vissé le long de sa surface pour guider les traverses successives empilées (7, 8, 9, 10, 11, 12), par l'intermédiaire d'une rainure (29) présente le long du profilé métallique (3, 4), lesdits poteaux (1, 2) comprennent également des rebords en haut et en bas (22, 23) de ceux-ci, des guides métalliques (6) vissables à une base de béton entre chaque profilé métallique (3, 4), joignant la base des poteaux (1, 2), ledit ensemble ajusté et immobilisé par l'utilisation du profilé de connexion (21), assemblé sur les rebords du haut des poteaux (1,2) et une feuille métallique (36) rattachable à l'intérieur du réservoir, **caractérisé en ce que**:

- gabarit (25) avec des marques de la localisation exacte pour la fixation des poteaux (1, 2), par l'insertion de vis et d'écrous aux points d'attache (27) des rebords et aux points d'attache (39) du profilé de connexion (21);
- le dit profilé de connexion (21), formant une pièce unique, avec une section en retrait en forme de U (24) pour recevoir simultanément le profilé d'ancrage (19, 20) pour la poche flexible et imperméable, un rebord (14, 15, 16, 17) et une traverse finale empilée (9), utilisant des fixations mécaniques aux points d'attache (39) le long du périmètre supérieur; et
- l'ensemble de montage comprend également un enjoliveur (37)..

2. Ensemble de montage pour réservoir selon la revendication précédente, dans lequel les poteaux (1, 2) ont des arêtes arrondies.

3. Ensemble de montage pour réservoir selon n'importe quelle revendication précédente, dans lequel un point d'attache est prévu pour la fixation d'une couverture (40).

4. Ensemble de montage pour réservoir, selon n'importe quelle revendication précédente, dans lequel est fourni un ensemble de segments de rebord (14, 15, 16, 17), placé sur la partie supérieure du périmètre de la piscine avec une forme adaptée aux angles du périmètre de la piscine, pouvant être droit, en angle, pour les escaliers du côté gauche, pour les escaliers du côté droit.

5. Ensemble de montage pour réservoir selon n'importe quelle revendication précédente, dans lequel les traverses (7, 8, 10, 11, 12) ont un emboîtement femelle-mâle (31, 32).

6. Ensemble de montage pour réservoir selon n'importe quelle revendication précédente, dans lequel il comprend également:

- une traverse pour les équipements de refoulement (12) avec un orifice (35);
- une traverse pour l'installation d'un panneau de fixation de skimmer (13) ayant un orifice (35).

7. Procédé pour l'assemblage d'un ensemble de montage pour réservoir, comprenant l'ensemble de montage, selon n'importe quelle revendication de 1 à 6 comprenant les pas suivants:

- préparation et nivelage du sol;
- mise en place du gabarit (25) directement sur le sol;
- mise en place des poteaux (1,2) sur les points marqués sur le gabarit (25);
- fixation des poteaux (1,2) à la base de béton par utilisation de fixations mécaniques;
- fixation mécanique des guides métalliques (6) au sol, entre chaque profilé métallique (3,4) à la base des poteaux (1,2) et pose de la première rangée de traverses empilables, dont les extrémités rentreront dans la rainure (29) du profilé

métallique (3, 4);
- fixation du profilé de connexion (21) aux rebords da la partie supérieure des poteaux (1,2) par fixation mécanique aux points d'attache (27) dans le rebord et aux points d'attache (39) du profilé de connexion (21);
- emboîtement de la seconde rangée de traverses empilables et suivantes;
- Mise en place du profilé d'ancrage (19,20) sur la section rabaissée (24) du profilé ;
- mise en place des traverses de skimmer, droite et gauche (10,11);
- collage du rebord (14, 15, 16, 17) au profilé de connexion (21) des poteaux (1,2)

8. Procédé pour l'assemblage d'un ensemble de montage pour réservoir, comprenant l'ensemble de montage, selon la revendication précédente, dans lequel la mise en place de la première rangée de traverses, la rainure femelle (31)de la traverse s'emboitera dans la saillie mâle (30) du guide métallique (6).

9. Procédé pour l'assemblage d'un ensemble de montage pour réservoir, selon n'importe quelle revendication 7-8, dans lequel le panneau pour la fixation du skimmer est installé par emboitement, dans la rainure du panneau de fixation du skimmer, de la saillie de la traverse.

10. Procédé pour l'assemblage d'un ensemble de montage pour réservoir, selon n'importe quelle revendication 7-9, dans lequel la feuille métallique (36) est déroulée à l'intérieur du réservoir et est fixée par fixation mécanique.

11. Procédé pour l'assemblage d'un ensemble de montage pour réservoir, selon n'importe quelle revendication 7 -10, dans lequel les enjoliveurs (37) sont posés à la base des poteaux (1,2).

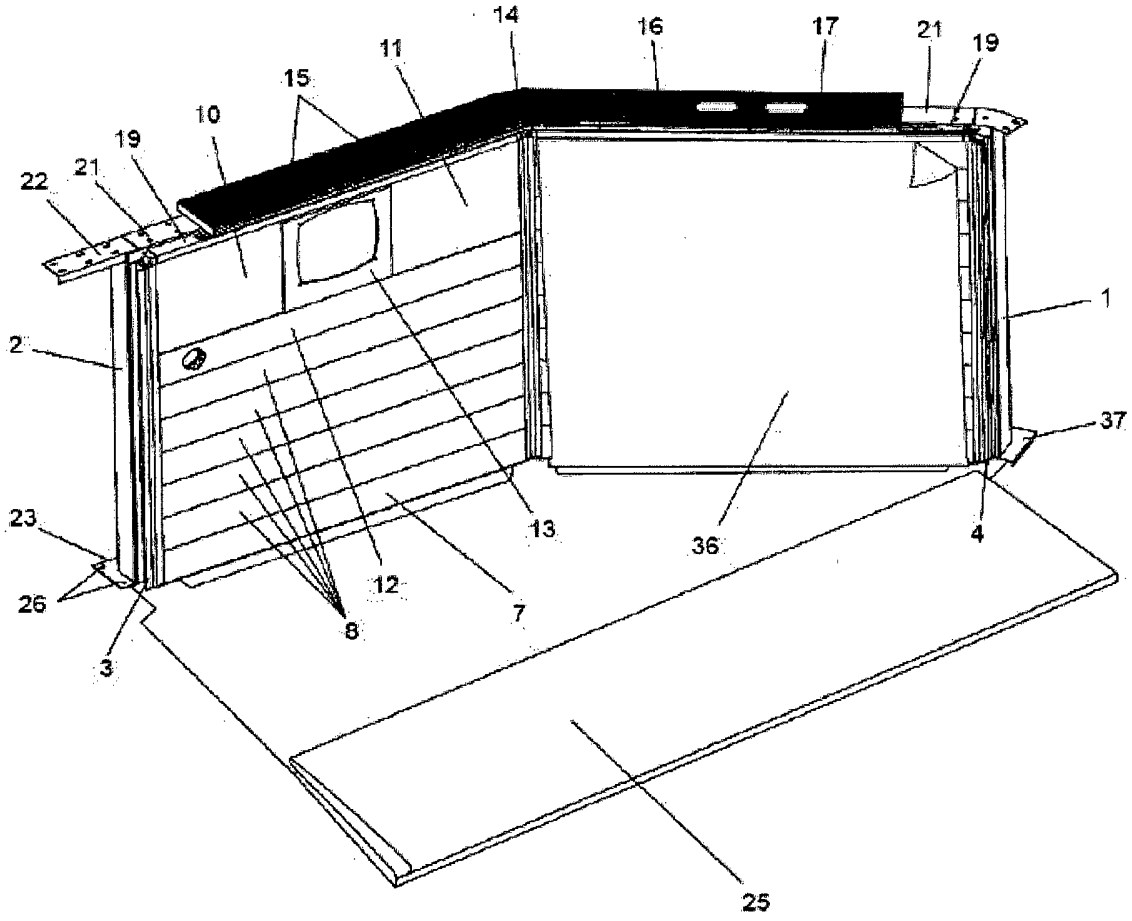

Figure 1

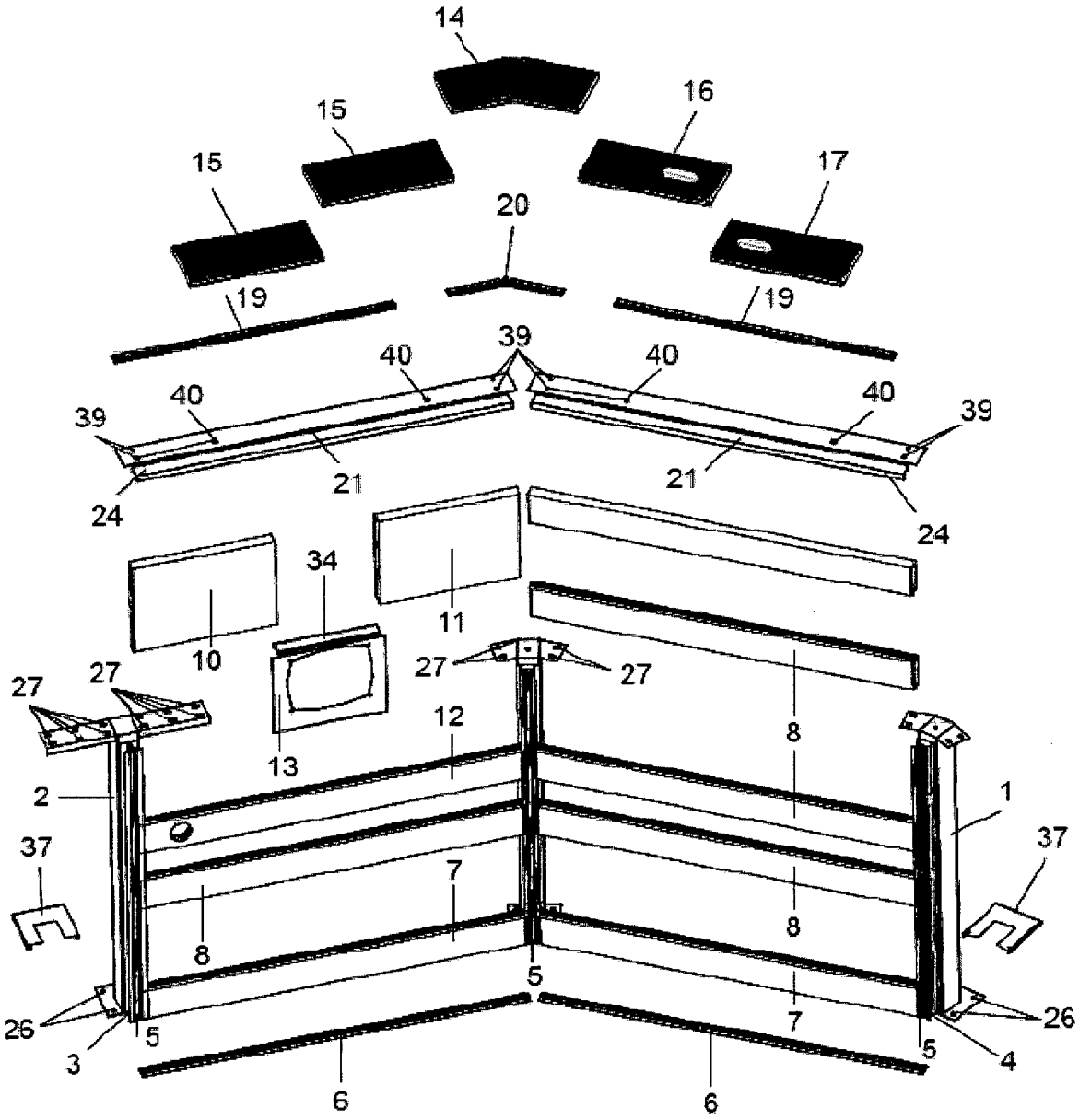
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Figure 2

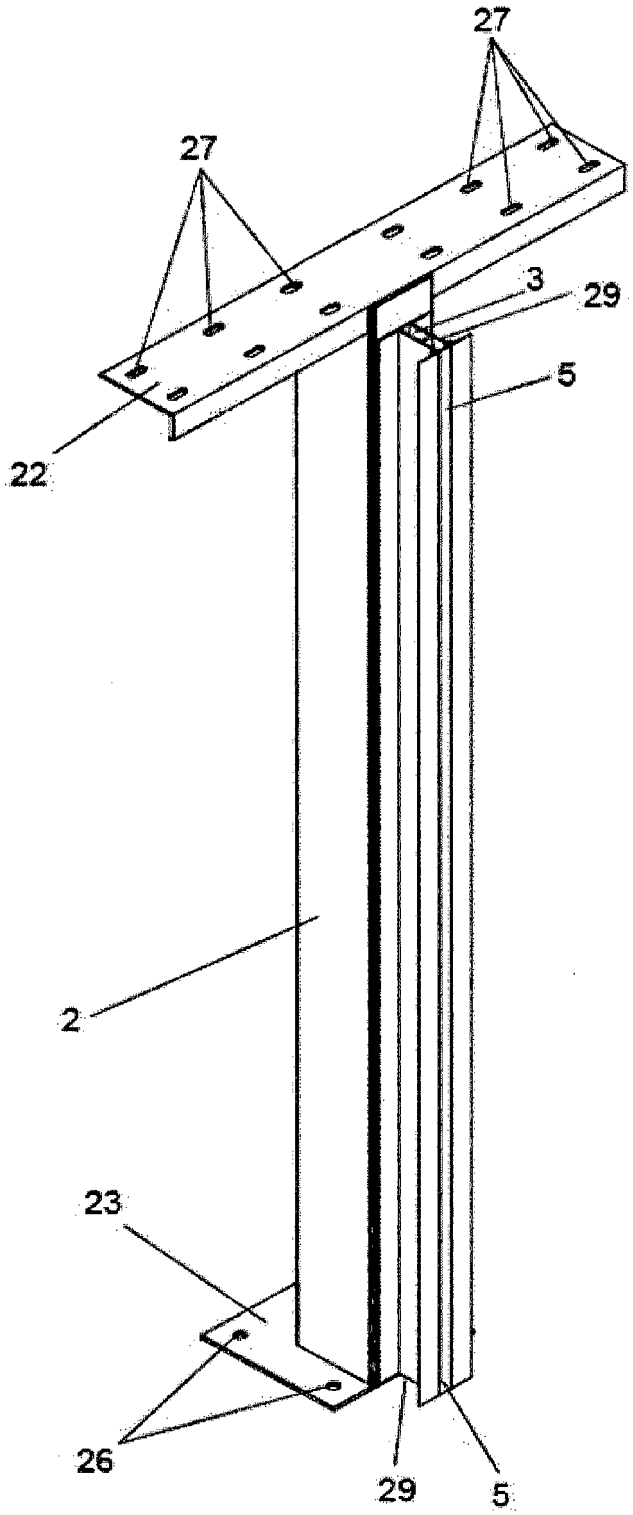

Figure 3

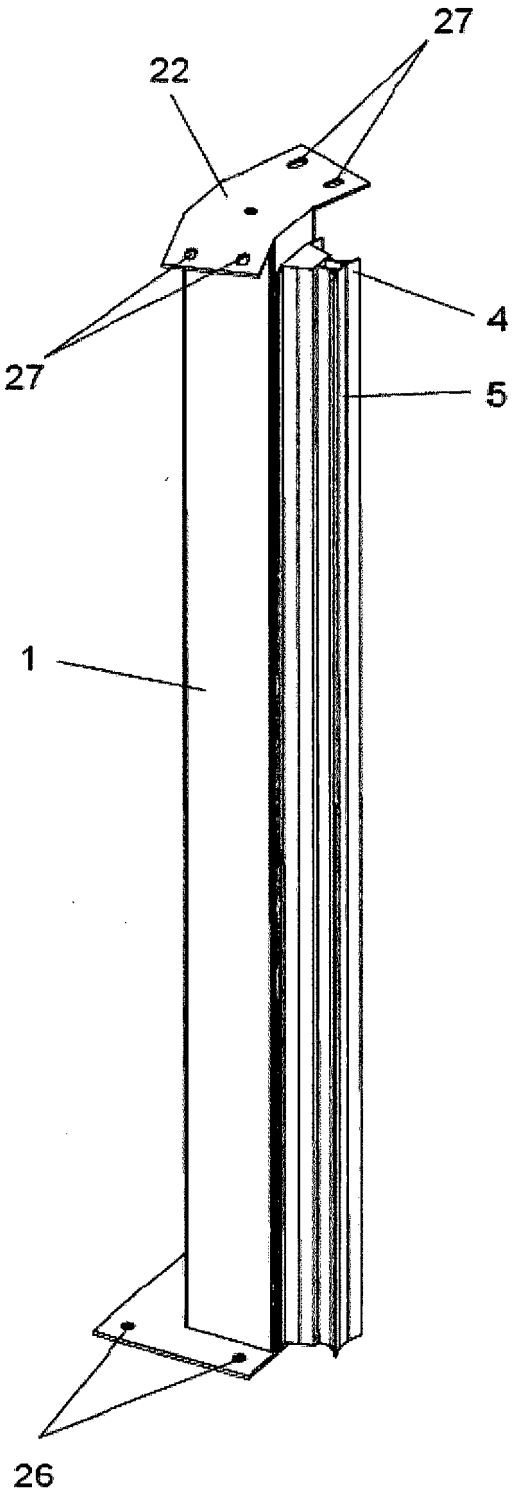

Figure 4

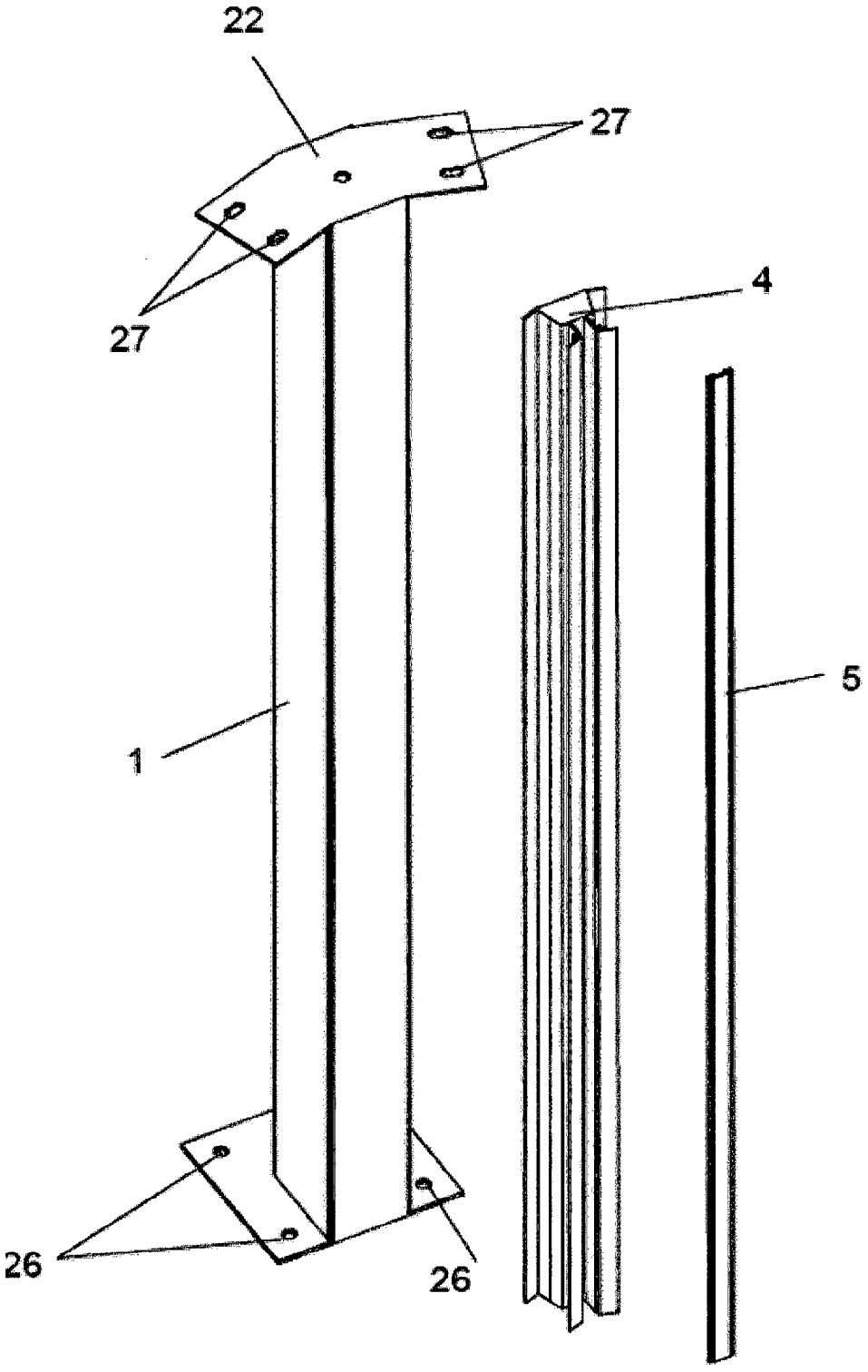

Figure 5

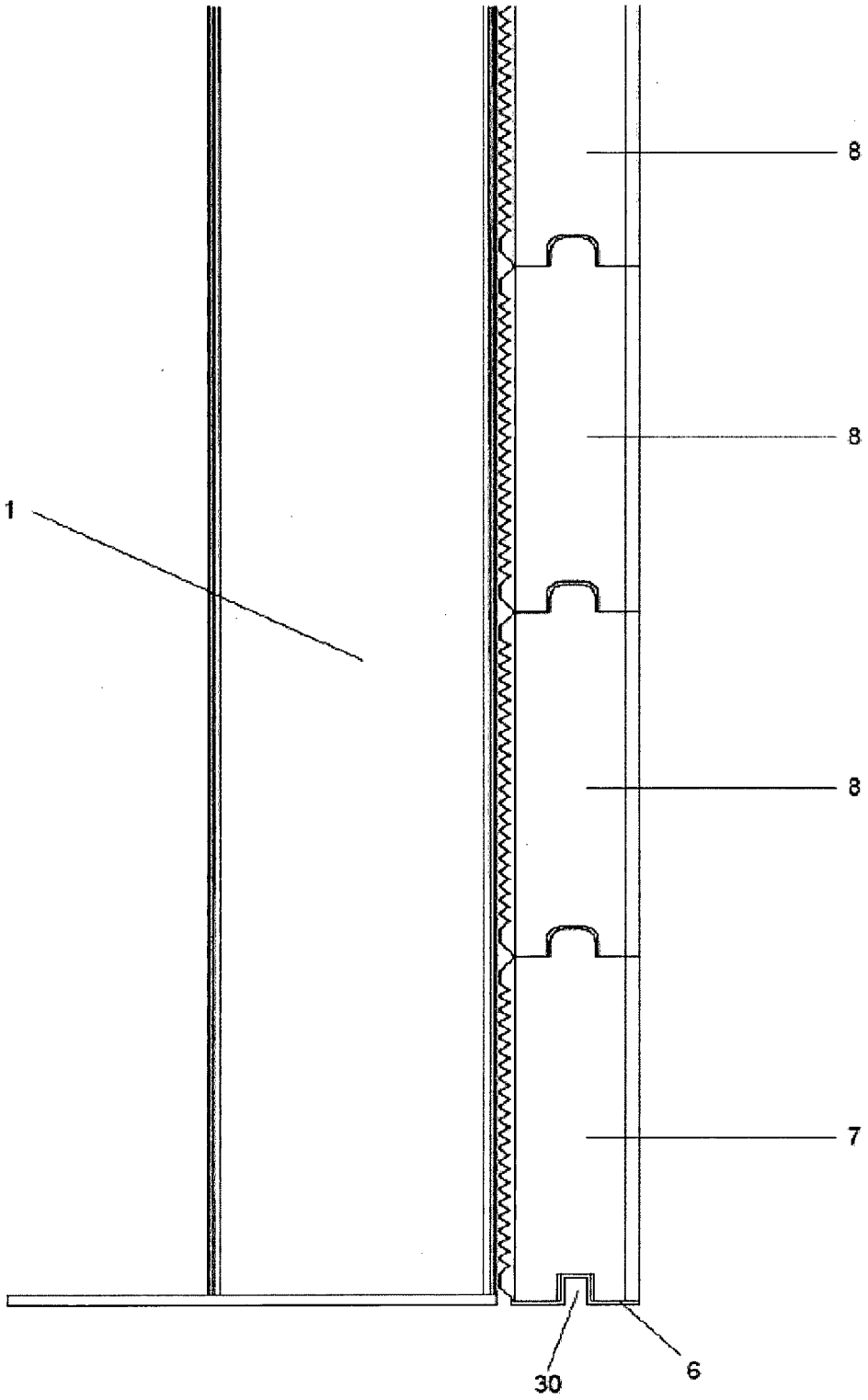

Figure 6

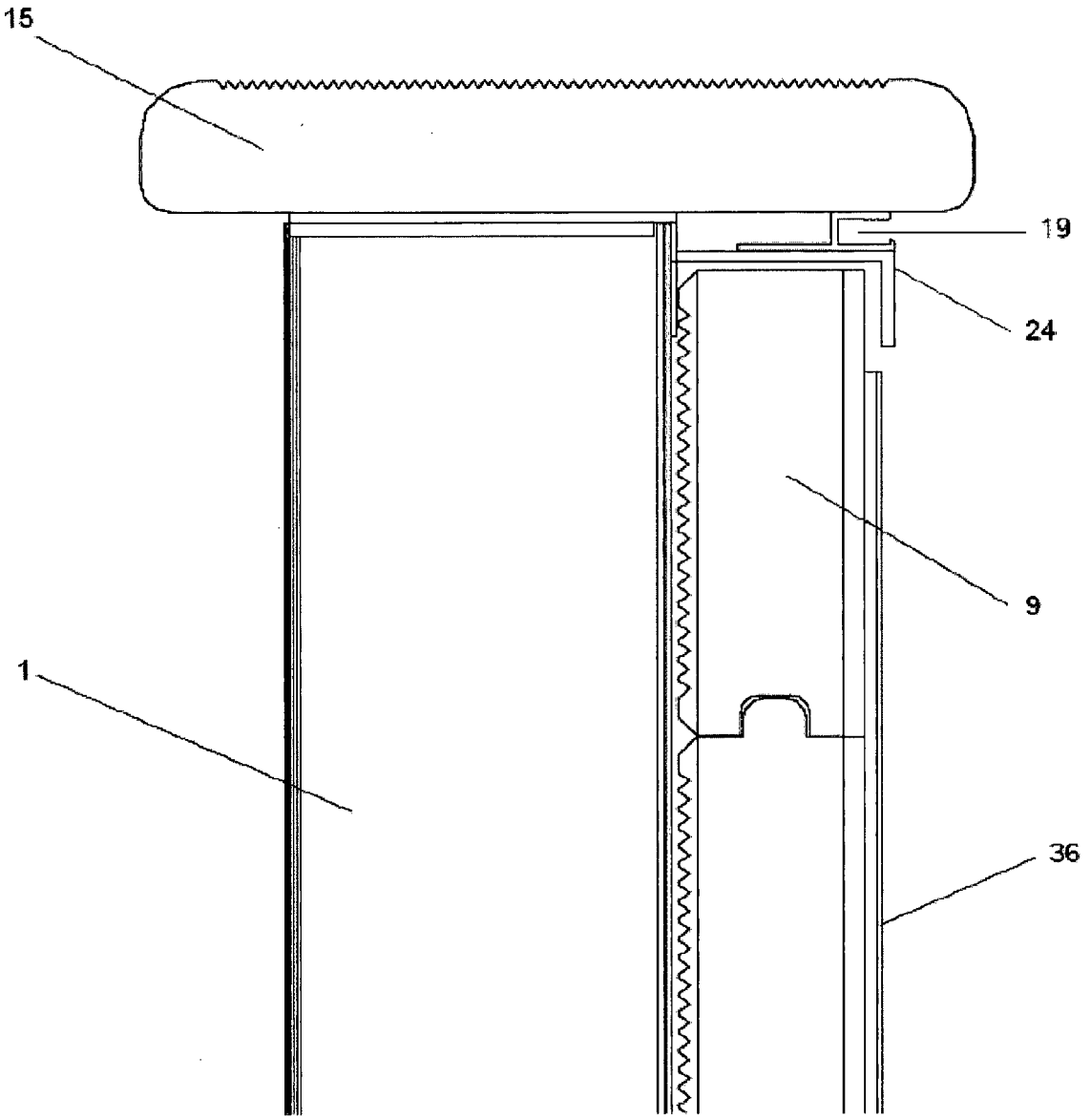

Figure 7

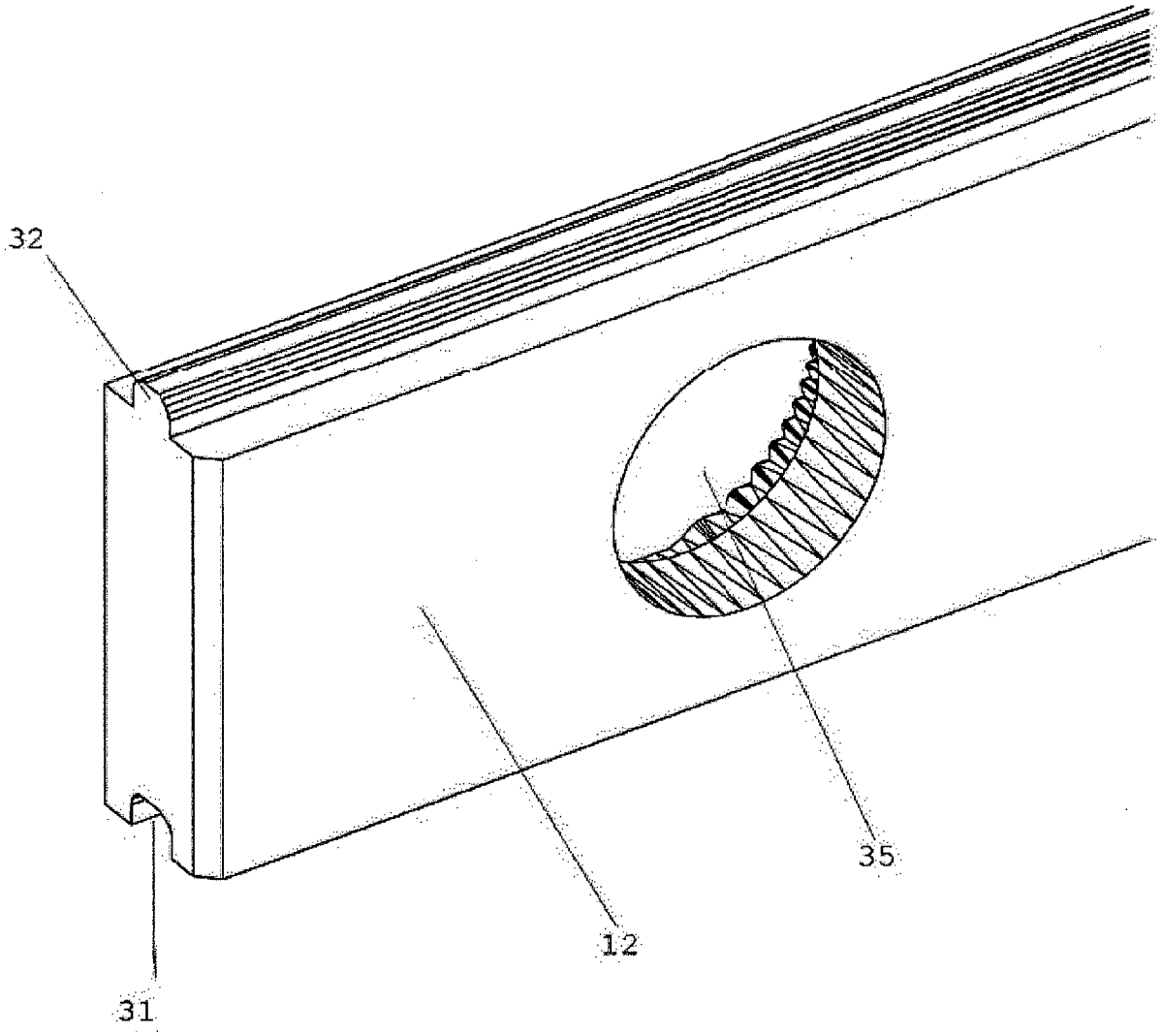

Figure 8

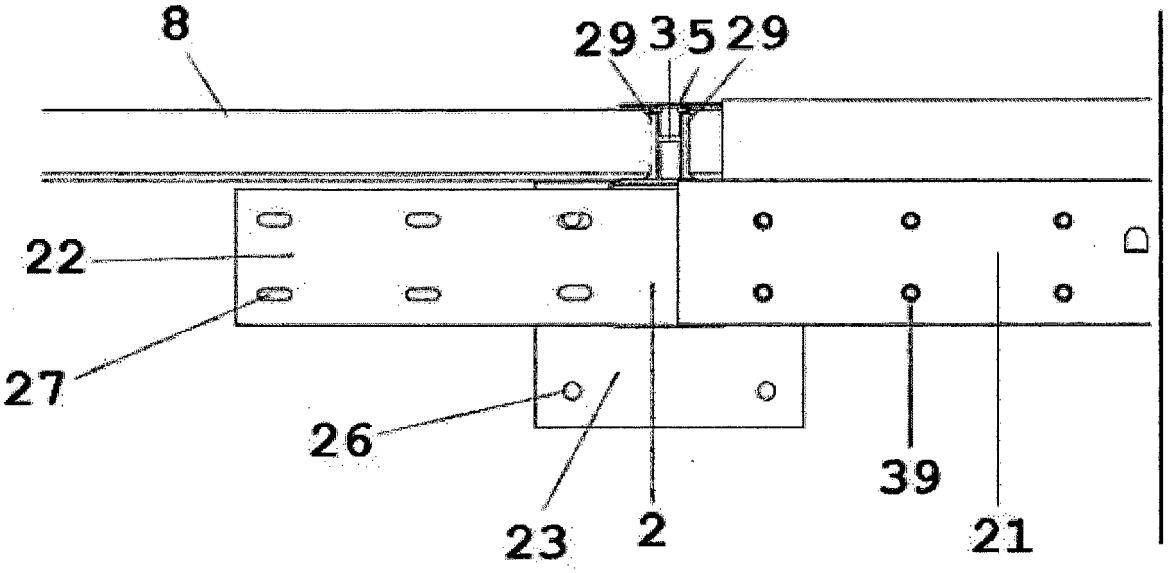

Figure 9

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- EP 2460950 A2 **[0003]**