

(19)



(11)

EP 4 741 579 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
13.05.2026 Bulletin 2026/20

(51) International Patent Classification (IPC):
E02D 29/14^(2006.01) E03F 5/06^(2006.01)

(21) Application number: **24383220.1**

(52) Cooperative Patent Classification (CPC):
E03F 5/06; E02D 29/14; E04F 15/02; E04H 4/1227

(22) Date of filing: **08.11.2024**

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL
NO PL PT RO RS SE SI SK SM TR**
Designated Extension States:
BA
Designated Validation States:
GE KH MA MD TN

(71) Applicant: **ROSA GRES, SLU**
08290 Cerdanyola, Barcelona (ES)

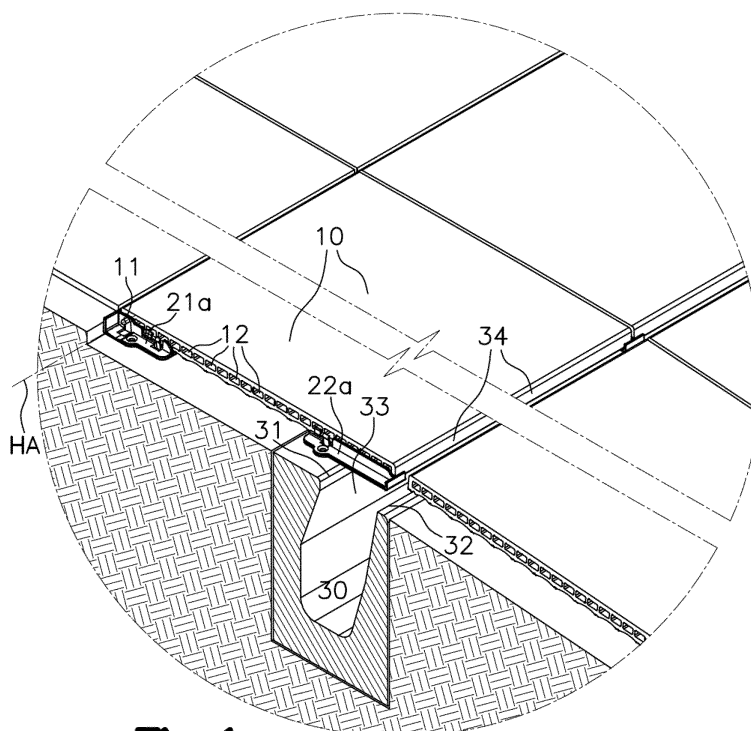
(72) Inventor: **DIVINS ROCHÉS, Oriol**
08290 Cerdanyola del Vallès (ES)

(74) Representative: **Sugrañes, S.L.P.**
Calle Provenza 304
08008 Barcelona (ES)

(54) **COVERING SYSTEM FOR COVERING A BASE SURFACE AND OVERFLOW CHANNEL
EMBEDDED IN A BASE SURFACE WITH SUCH A COVERING SYSTEM**

(57) Covering system for covering a base surface overflow channel embedded in a base surface with a covering system, wherein the covering system comprises a cover (10) with a first through hole (11); and a frame including a hinge configuration (24) adapted to cooperate with the cover (10) to pivotably drive the cover (10) around a hinge axis (HA) between a closed position, and an open position, wherein the frame is made of

several independent frame elements (21a, 21b, 22a, 22b), each frame element (21a, 21b, 22a, 22b) including at least one attachment configuration (23), and wherein the hinge configuration (24) is included in two opposed frame elements; and the hinge configuration (24) of the frame cooperates with the first through hole (11) of the cover (10) determining the alignment of the hinge axis (HA) with the first through hole (11) of the cover (10).

**Fig. 1**

Description

Technical field

[0001] The present invention concerns a covering system for covering a base surface and to an overflow channel embedded in a base surface with a covering system.

[0002] The covering system is a hinged covering system intended for covering regions of a base surface requiring access for periodic maintenance.

[0003] The overflow channel, occasionally also referred to as water collection channels or surge water channel, generally run around the edge of swimming pools and are used to collect water that spills over the edge of the pool. The collected water is preferably returned to the pool after appropriate water treatment.

Background of the Invention

[0004] Covering systems, including a cover pivotally hinged to a frame, for covering a region of a base surface are already known.

[0005] Typically, the cover and the frame are dimensioned to match each other in order to obtain the cooperation between the hinge configurations of the frame and the complementary elements of the cover in order to obtain the hinged connection between them.

[0006] This prevents variability in the size of the cover, as changing the size of the cover requires a corresponding change in the size of the frame, which increases production costs. It also prevents installers from easily adjusting the size of the cover to fit in the installation site.

[0007] For example, DE102017112614A1 describes a cover that is hinged on one side to allow the pivotal opening thereof. However, this solution does not foresee any measures to adapt the size of the cover to fit the size of the installation site. Also, in this case, the cover is installed over a linear opening of the overflow channel covering a central region of the linear opening, the cover being supported on both sides of the linear opening, defining two unobstructed slots over the overflow channel, one on each side of the cover. Using two unobstructed linear slots produces a significant visual impact by limiting the width of the cover to the width of the channel, and by creating two unobstructed linear slots, the regions where dirt can accumulate are doubled.

[0008] The first aspect of the present invention solves this and other problems.

[0009] Also, overflow channels embedded in a base surface covered with a covering system are well known, using in a wide variety of covering system designs.

[0010] Depending on the design, the linear opening of the overflow channel can be below the edge of the pool, in which case the water level in the pool is below the edge of the pool, or it can be flush with the upper edge of the pool, in which case the water level reaches the upper edge of the pool.

[0011] In this second type of overflow channels, the overflow channel defines a linear opening which provides access to the interior of the channel located below said linear opening. Said linear opening is typically big enough to allow for cleaning, maintenance and inspection operations, and is covered with a hinged cover supported on both lateral sides of the linear opening.

[0012] This cover has traditionally been a grid-like cover structure, as described for example in DE4407452A1, for example. However, such grid-like covers offer many regions in which dirt can accumulate and are visually very conspicuous and therefore do not allow an even, uniform base surface design around the pool.

[0013] DE102008011125 also discloses an overflow channel with a cover which is not a grid-like cover but a piece of the same material as the surroundings housed within the lineal opening, defining two parallel unobstructed linear slots on both sides of the cover. However, the disadvantage here is that the cover has to be completely removed to gain access to the overflow channel, for example for cleaning or maintenance purposes.

[0014] A second aspect of the present invention provides a solution to the above and other problems.

Description of the Invention

[0015] According to the first aspect, the present invention concerns to a covering system for covering a base surface, as described in claim 1.

[0016] The proposed covering system comprises:

a cover defining a front surface and comprising a first through hole parallel to said front surface; and

a frame including attachment configurations adapted to enable the frame to be secured to the base surface, and a hinge configuration adapted to cooperate with the cover to pivotably drive the cover around a hinge axis between a closed position, where the front surface of the cover is parallel to the frame, and an open position where front surface of the cover is raised forming an angle with the frame.

[0017] The cover, typically a flat rectangular cover, includes two main surfaces, one back surface facing the base surface when in the closed position and one front surface opposed to the back surface which is typically a walkable surface. Those two surfaces are the biggest surfaces of the cover and determine corresponding perimetral edges connected through lateral sides of the cover. Typically, the front surface is a flat surface.

[0018] According to the above, the cover includes a first through hole parallel to the front surface. This allows a cross section of the cover, perpendicular to said through hole, to be preferably constant along the entire cover, the cover being suitable for production through extrusion, and allowing the transversal cutting of the cover at any

desired longitude.

[0019] The covers can also be cut at an angle, forming a trapezoidal or triangular cover, to cover corners of an overflow channel. The non-orthogonal edge of the cut cover will present anyways the open end of the first through-hole, allowing the cooperation of the frame elements therewith. Some covers can also be directly fixed or glued to the base surface, for example with cement, so they do not need to be provided with frame elements according to the invention, but they can be attached in a known manner.

[0020] The frame provides retention to the cover when in the closed position, preventing unwanted movements of the cover particularly in directions parallel to the front surface, typically by fitting at least a portion of the cover within the frame or between cover edge retainers included in the frame which are facing perimetral sides of the cover.

[0021] The frame will allow a pivotal movement of the cover, guided by the hinge configurations, from the closed position where the cover rests parallel to the frame, towards the open position, where the cover defines an angle with the frame, by rotating the cover around the hinge axis provided in at least one of the frame elements, where it is contemplated that only one frame element has a hinge configuration that cooperates with the through hole of the cover determining the hinge axis of the cover.

[0022] The pivotal movement of the cover allows positioning the cover in the open position in which the cover is raised, for example forming an angle between 60° and 120° or preferably between 80 and 100° with the frame.

[0023] The frame includes attachment configurations, for example in the form of through holes for screws, allowing the attachment of the frame to the base surface.

[0024] The frame defines a plane parallel to the base surface where the frame is attached. When the cover is in the closed position, the front face of the cover will be parallel with said plane defined by the frame, and therefore parallel to the base surface.

[0025] The intended use of the covering system is for a cover integrated in a walkable floor, in which case the base surface, and also the frame and the cover when in the closed position, will be mostly horizontal.

[0026] The cover can be adjacent to flooring tiles attached to the base surface. Such flooring tiles can be made of the same material as the cover and/or can be identical to the cover. In other words, the cover can be a flooring tile which, when cooperating with the frame, constitutes a cover.

[0027] The present invention also proposes the following features:

the frame is made of several independent frame elements, each frame element including at least one attachment configuration, and wherein the hinge configuration is included in one frame element or in two opposed frame elements; and

the hinge configuration of the frame cooperates with the first through hole of the cover determining the alignment of the hinge axis with the through hole of the cover.

[0028] Being the frame made of several independent frame elements allows the easy modification of the distance between said frame elements, adapting the size of the frame to different sizes of the cover.

[0029] According to the above, the hinge configuration can be a single hinge configuration, connected to one side of the cover, or can be divided into two opposed frame elements separated in the hinge axis direction, being the cover located between said two opposed frame elements, the other opposed frame elements presenting a vertical flat surface for retaining the cover in the closed position but allowing disengaging the cover once the cover is in the open position. Thanks to the vertical section of the hinge configuration, for example a pin, being smaller than the vertical section of the first through hole, it is, the through hole is wider than the hinge configuration, once the cover is in open position, the cover can be tilted or rotated causing advantageously the disengagement of the cover from the frame elements, so the cover can be completely separated, for example for easy access or replacement. This disengagement is easily done when only one of the two opposed frame elements has a hinge configuration, the other having no hinge, but it can also happen when both opposed frame elements have a hinge configuration, when the through hole is wider than the hinge elements, or with a short hinge element, for example in the shape of a round rivet head. Naturally, the opposed frame elements where at least one has a hinge element can be provided with recesses, under the hinge axis, allowing the passage of the edge of the cover during the opening. Such recesses can be curved according to the path of the edge of the cover, so the cover can freely move during opening. The distance between the two opposed frame elements in the hinge axis direction can be adapted, attaching each frame element to the base surface at the desired location through the corresponding attachment configuration, to fit a cover of any size in between.

[0030] In any case, the hinge configuration of the frame cooperates with the first through hole of the cover by determining the alignment of the hinge axis with the through hole of the cover, for example by aligning the first through hole and the hinge configuration in the direction of the hinge axis and by coupling or mutual insertion of the hinge configuration and the first through hole. Alternatively, such cooperation may be achieved, for example, by providing a hinge configuration which is intended to partially surround the through hole and which externally contacts the wall which defines the through hole by surrounding it, the hinge configuration guiding the pivotal movement of the cover.

[0031] Since the hinged connection between the cover and the frame is obtained through the through hole of the

cover, which extends along the entire longitude of the cover, the cover can be cut at any desired length, or even at an angle, without affecting its ability to cooperate with the hinge configuration of the frame.

[0032] The cover is preferably entirely made of ceramic material or cementitious material, being for example a flooring tile.

[0033] The hinge configuration can comprise two opposed and aligned hinge elements, at least partially inserted in both open ends of the first through hole.

[0034] Alternatively, the hinge configuration can comprise only one hinge element at least partially inserted in said first through hole through one of its two open ends, allowing an easy detachment of the cover from the frame once in the open position, the cover being guided by the hinge element around the hinge axis from the closed position initially during the opening until the cover can be detached. Since the other opposite frame element to the one comprising the hinge element provides a flat ending to the first through hole of the cover, it eases the detachment of the cover once it has been partly open, when the cover is laterally moved, for example, rotated or even tilted.

[0035] Each hinge element can be, for example, a pin protruding in the direction of the hinge axis. Said pin can be partially inserted in the first through hole through one of its open ends, providing the above mentioned cooperation to allow the pivotal movement of the cover.

[0036] According to a second aspect, the present invention concerns an overflow channel embedded in a base surface with a covering system, as defined in claim 13, wherein

the overflow channel comprises first and second opposed upper edges defining a linear opening therebetween;

the covering system is the covering system described in any of the preceding claims, in repeated alignment in the hinge axis direction, with the frame secured to the base surface positioning the hinge axis parallel to the first and second upper edges of the overflow channel.

[0037] The overflow channel is typically a U-shaped elongated element, commonly made of concrete, embedded in the base surface leaving a linear opening for access to the interior of the channel open.

[0038] The U-shape of the overflow channel provides two opposed lateral walls facing each other, a channel bottom connecting both lateral walls, and the linear opening between the lateral walls through which water can enter the channel.

[0039] The linear opening is defined between two parallel first and second upper edges of the U-shaped overflow channel, defined on a top edge of the lateral walls. Typically, the first and second upper edges are coplanar with a plane approximately horizontal.

[0040] The overflow channel is embedded in the base surface, typically surrounding the swimming pool, the linear opening being flush with or slightly below the base surface, the linear opening being horizontal and coplanar or slightly above the water level of the swimming pool, so that any wave or spill will raise the water level locally, the water falling within the overflow channel through the linear opening.

[0041] The covering system is the covering system described above, comprising a cover with a through hole and a frame with a hinge configuration in cooperation with the through hole for allowing the pivotal movement of the cover.

[0042] The covering system can be repeated, covering the overflow channel with a succession of covers with the respective frames.

[0043] In the closed position the cover has a base portion, comprised between the hinge axis and the first upper edge, which does not face the linear opening, and a cantilever portion which extends in cantilever from the first upper edge towards the second upper edge without reaching said second upper edge, leaving an unobstructed linear slot of the linear opening between the cover and the second upper edge.

[0044] The base portion separates hinge axis from the first upper edge, in a direction perpendicular to the hinge axis, offering a lever arm to better resist any load resting on the cantilever portion of the cover, reducing the stress on the hinge configuration.

[0045] According to a preferred embodiment, the base portion will cover at least half of the surface of the cover, or at least two thirds thereof.

[0046] This construction creates an overflow channel with one single unobstructed linear slot, which is cleaner, and more visually appealing than other known solutions.

[0047] The hinge axis is adjacent to an edge of the base portion furthest away from the linear opening.

[0048] In this case, the cover is proposed to be a non-grid-like cover, to prevent the creation of corners where the dirt accumulates.

[0049] It will be understood that references to geometric position, such as parallel, perpendicular, tangent, etc. allow deviations up to $\pm 5^\circ$ from the theoretical position defined by this nomenclature.

Brief description of the Figures

[0050] The foregoing and other advantages and features will be more fully understood from the following detailed description of an embodiment with reference to the accompanying drawings, to be taken in an illustrative and non-limitative manner, in which:

Fig. 1 shows a perspective view of the proposed covering system with the cover in the closed position, associated with an overflow channel.

Fig. 2 shows the same as Fig. 1 but with the cover in the open position.

Fig. 3 shows the same as Fig. 1 but with the cover removed.

Fig. 4 shows a perspective view of some of a cover detached from the frame elements, one frame element including only a left portion of the hinge configuration.

Fig. 5 shows a perspective view of the frame element including a left portion and a right portion of the hinge configuration.

Fig. 6 shows a cross section of the covering system associated with an overflow channel with the cover in the closed position., according to an embodiment where the pool edge is separated from the second upper edge of the overflow channel, being the vertical front side of the overflow channel covered by one ceramic piece, and being the distance between said front vertical side and the second upper edge covered by another different ceramic piece.

Fig. 7 shows a cross section of the same covering system shown in Fig. 6 but in the open position.

Fig. 8 shows a perspective view of the covering system shown in Figs. 6 and 7, installed in a zigzagging pool edge, with some covers in open position.

Detailed Description of the Invention and of particular embodiments

[0051] The proposed covering system for covering a base surface comprises a cover 10 defining a front surface and a back face on two opposed main surfaces. The cover 10 also comprises a first through hole 11 parallel to said front surface.

[0052] The system further comprises a frame including attachment configurations 23 adapted to enable the frame to be secured to the base surface, and a hinge configuration 24 adapted to cooperate with the cover 10 to pivotably drive the cover 10 around a hinge axis HA between a closed position, where the front surface of the cover 10 is parallel to the frame, with the back surface facing the base surface, and an open position where front surface of the cover 10 is raised forming an angle with the frame leaving the base surface uncovered.

[0053] The frame is made of several independent frame elements 21a, 21b, 22a, 22b, each including at least one attachment configuration 23 for its independent attachment to the base surface. Preferably, the frame is made of plastic, because it is cheap, resistant and non-corrodible.

[0054] The hinge configuration 24 is included in one or in two opposed frame elements, permitting the modification of the width of the cover 10 in the hinge axis direction by adjusting the separation between the frame elements including the hinge configuration.

[0055] The hinge configuration 24 of the frame cooperates with the first through hole 11 of the cover 10 determining the alignment of the hinge axis HA with the first through hole 11 of the cover 10, ensuring the rotation of the cover 10 around the first through hole 11.

[0056] The hinge configuration 24 may comprise one hinge element, or two opposed and aligned hinge elements, such protruding pins aligned with the hinge axis, at least partially inserted in said first through hole 11.

[0057] When two opposed and aligned hinge elements are inserted on both open ends of the same first trough hole 11, the cover will be retained attached to the frame, the release of one frame element from the base surface being required for the release of the cover from the frame. On contrary, when the hinge configuration only includes one hinge element inserted on one open end of the first through hole 11, the cover can be freely attached or detached from the frame when the cover 10 is in the open position, without requiring the release of the frame from the base surface.

[0058] According to one embodiment shown in detail in Fig. 4, each frame element 21a, 21b, 22a, 22b comprises one base plate, including through holes constitutive of the attachment configurations 23, and at least one vertical wall perpendicular to the base plate and to the hinge axis.

[0059] Said vertical wall of the frame elements will be fitted between two adjacent covers, providing a lateral limit to prevent a lateral movement of the covers and also providing a constant gap separation between adjacent covers. Some frame elements may further include additional vertical walls, perpendicular to the above mentioned vertical walls, which will providing a transversal limit to prevent a transversal movement of the covers in a horizontal direction perpendicular to the hinge axis, said additional vertical walls facing the edges of the cover parallel to the hinge axis.

[0060] At least a portion of the hinge configuration 24 can be protruding from said vertical wall, in a direction parallel to the hinge axis, on at least one frame element 21a, 21b, 22a, 22b. Preferably, the frame comprises a support surface on which a back surface of the cover 10 rests when in the closed position. The support surface can be, for example, a portion of the above mentioned base plate. This support surface ensures a perfect support of the cover on the frame without being affected by potential imperfections of the base surface.

[0061] The cover 10 can further include additional second through holes 12 parallel to the first through hole 11.

[0062] For example, the cover 10 can include a succession of parallel second through holes 12 in close proximity to each other and to the first through hole 11, thus creating a relatively thick and lightweight cover, for example with at least 65% or at least 75% of its volume being empty space.

[0063] According to a preferred embodiment, the front surface and the back surface of the cover are spaced apart and connected through interposed ribs parallels to the hinge axis, the distance between the parallel ribs defining the first through hole and the second through holes. This construction provides a lightweight and resistant construction.

[0064] The frame may also comprise elastically de-

formable clipping elements 25a, 25b at least partially inserted in a releasable manner in at least one of the second through holes 12 of the cover 10, when the cover is in the closed position.

[0065] In this case, the elastically deformable clipping elements 25a, 25b are preferably included in two opposed frame elements 21a, 21b, 22a, 22b retaining the cover in between, but the inclusion thereof on one single frame element is also possible.

[0066] The cover 10 can be cut transversally to the first through hole 11 at any desired length or even at an angle forming a triangular or trapezial cover 10. This is shown, for example, in the corners of the zigzagging succession of covers shown in Fig. 8, where a 90° corner of the overflow channel is covered by two successive triangular and/or trapezial covers, each with one edge cut at 45°. A frame element can be placed in each edge of the cover 10, thus retaining the cover in the closed position.

[0067] In this case, the non-orthogonal edge of the cover defined by the cut will present anyways the open end of the first through-hole 11 and of the second through-holes 12, allowing the cooperation of the hinge configurations 24 and/or of the clip elements 25a, 25b of the frame elements therewith.

[0068] The frame may comprise two identical first frame elements 21a, 21b separated in the hinge axis direction HA, each comprising a left portion of the hinge configuration 24 and/or a right portion of the hinge configuration 24, the cover 10 being hinged to the frame by the left portion of the hinge configuration 24 of one first frame element 21a and/or by the right portion of the hinge configuration 24 of the other first frame element 21b, the portion not comprising a hinge configuration can be flat, it is, having a vertical flat part, for easing the detachment of the cover.

[0069] This feature allows the shared use of a single first frame element by two adjacent covers.

[0070] Also allows for the use of identical first frame elements to be placed irrespectively to the left or to the right side of the cover, reducing the fabrication cost and the possibility of installation errors.

[0071] Also, the frame may comprise two identical second frame elements 22a, 22b separated in the hinge axis direction HA, each comprising left elastically deformable clipping elements 25a and/or right elastically deformable clipping elements 25b, the cover (10) being retained to the frame, when in the closed position, by the left elastically deformable clipping elements 25a of one second frame element 22a and/or by the right elastically deformable clipping elements 25b of the other second frame element 22b. This provides the same advantages than the use of two identical first frame elements.

[0072] Optionally, one first frame element 21a and one second frame element 22a can be integrated in a single frame element containing all the features of both first and second frame elements 21a and 21b.

[0073] Preferably, a cross section of the cover 10,

perpendicular to the hinge axis HA, is constant along the entire cover 10, the cover 10 being therefore suitable for production through extrusion. Preferably the cover 10 is entirely made of ceramic material or cementitious material, which also allows the production through extrusion.

[0074] According to another embodiment, cover 10 may include, at least on one lateral side perpendicular to the hinge axis HA, an elastomeric sealing gasket attached thereto. A succession of covers, each including one of those sealing gaskets, will provide a sealing on all the joints between adjacent covers.

[0075] According to a second aspect, the present invention concerns an overflow channel embedded in a base surface with a covering system.

[0076] The overflow channel 30 will comprise first upper edge 31 and second opposed upper edge 32 defining a linear opening 33 therebetween.

[0077] This overflow channel will be embedded within the base surface including the covering system described above, so that the cover of the covering system will at least partially cover the linear opening 33 of the overflow channel 30.

[0078] The overflow channel can be covered by a repeated alignment of covers 10 and frames, in the hinge axis HA direction. Frames will be secured to the base surface positioning the hinge axis HA of each cover 10 parallel to the first and second upper edges 31, 32 of the overflow channel 30.

[0079] In the closed position each cover 10 will have a base portion 10a, comprised between the hinge axis HA and the first upper edge 31 which does not face the linear opening 33, and a cantilever portion 10b which extends in cantilever from the first upper edge 31 towards the second upper edge 32 without reaching said second upper edge 32, leaving an unobstructed linear slot 34 of the linear opening 33 between the cover 10 and the second upper edge 32.

[0080] The base portion 10a will cover at least half of the surface of the cover 10, or at least two thirds thereof, to provide a strong lever arm.

[0081] According to another embodiment of the invention, cantilever portion 10b of the cover 10 can be supported on at least one frame element 21a, 21b, 22a, 22b, for example second frame elements 22a and/or 22b, secured to a base surface and extending in cantilever over a portion of the linear opening 33 from the first upper edge 31 towards the second upper edge 32. In this case, the unobstructed linear slot 34 of the linear opening is completely free of interruptions.

[0082] Alternatively, the cantilever portion 10b of the cover 10 is supported on at least one frame element 21a, 21b, 22a, 22b, for example second frame elements 22a and/or 22b, secured to a base surface and extending between the first and second upper edges 31, 32 over the linear opening 33. In this case, the unobstructed linear slot 34 of the linear opening is only interrupted by the frame elements bridging between the first and second

upper edges 31, 32 of the overflow channels, but said frame elements can be at a lower level than the cover, providing a non-apparent interruption of the unobstructed linear slot 34.

Claims

1. Covering system for covering a base surface, the covering system comprising:

a cover (10) defining a front surface and comprising a first through hole (11) parallel to said front surface; and

a frame including attachment configurations (23) adapted to enable the frame to be secured to the base surface, and a hinge configuration (24) adapted to cooperate with the cover (10) to pivotably drive the cover (10) around a hinge axis (HA) between a closed position, where the front surface of the cover (10) is parallel to the frame, and an open position where front surface of the cover (10) is raised forming an angle with the frame, **characterized in that**

the frame is made of several independent frame elements (21a, 21b, 22a, 22b), each frame element (21a, 21b, 22a, 22b) including at least one attachment configuration (23), and wherein the hinge configuration (24) is included in one or in two opposed frame elements; and

the hinge configuration (24) of the frame cooperates with the first through hole (11) of the cover (10) determining the alignment of the hinge axis (HA) with the first through hole (11) of the cover (10).

2. The covering system according to claim 1 wherein each hinge configuration (24) comprises one hinge element at least partially inserted in said first through hole (11).
3. The covering system according to claim 1 or 2 wherein the frame comprises a support surface on which a back surface of the cover (10) rests when in the closed position.
4. The covering system according to any preceding claim wherein the cover (10) further includes additional second through holes (12) parallel to the first through hole (11).
5. The covering system according to claim 4 wherein the frame comprises elastically deformable clipping elements (25a, 25b) at least partially inserted in a releasable manner in at least one of the second through holes (12) of the cover, when the cover is in the closed position.

6. The covering system according to claim 5 wherein the elastically deformable clipping elements (25a, 25b) are included in one or in two opposed frame elements (21a, 21b, 22a, 22b).

7. The covering system according to any preceding claim wherein the frame comprises two identical first frame elements (21a, 21b) separated in the hinge axis direction (HA), each comprising a left portion of the hinge configuration (24) and/or a right portion of the hinge configuration (24), the cover (10) being hinged to the frame by the left portion of the hinge configuration (24) of one first frame element (21a) and/or by the right portion of the hinge configuration (24) of the other first frame element (21b).

8. The covering system according to claim 5 or 6 wherein the frame comprises two identical second frame elements (22a, 22b) separated in the hinge axis direction (HA), each comprising left elastically deformable clipping elements (25a) and/or right elastically deformable clipping elements (25b), the cover (10) being retained to the frame, when in the closed position, by the left elastically deformable clipping elements (25a) of one second frame element (22a) and/or by the right elastically deformable clipping elements (25b) of the other second frame element (22b).

9. The covering system according to any preceding claim wherein each frame element (21a, 21b, 22a, 22b) comprises one base plate, including through holes constitutive of the attachment configurations (23), and at least one vertical wall perpendicular to the base plate, at least a portion of the hinge configuration (24) protruding from said vertical wall on at least one frame element (21a, 21b, 22a, 22b).

10. The covering system according to any preceding claim wherein a cross section of the cover (10), perpendicular to the hinge axis (HA), is constant along the entire cover (10), the cover (10) being suitable for production through extrusion.

11. The covering system according to any preceding claim wherein the cover (10) is entirely made of ceramic material or cementitious material.

12. The covering system according to any preceding claim wherein the cover (10) includes, at least on one lateral side perpendicular to the hinge axis (HA), an elastomeric sealing gasket attached thereto.

13. An overflow channel embedded in a base surface with a covering system, wherein:

the overflow channel (30) comprises first upper edge (31) and second opposed upper edge (32)

defining a linear opening (33) therebetween;
the covering system is the covering system de-
scribed in any of the preceding claims, in re-
peated alignment in the hinge axis (HA) direc-
tion, with the frames secured to the base surface 5
positioning the hinge axis (HA) of each cover
(10) parallel to the first and second upper edges
(31, 32) of the overflow channel (30);

characterized in that

in the closed position each cover (10) has a base 10
portion (10a), comprised between the hinge axis
(HA) and the first upper edge (31) which does
not face the linear opening (33), and a cantilever
portion (10b) which extends in cantilever from
the first upper edge (31) towards the second 15
upper edge (32) without reaching said second
upper edge (32), leaving an unobstructed linear
slot (34) of the linear opening (33) between the
cover (10) and the second upper edge (32).

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14. The overflow channel according to claim 13 wherein
the base portion (10a) will cover at least half of the
surface of the cover (10), or at least two thirds there-
of.

- 25
15. The overflow channel according to claim 13 or 14
wherein

the cantilever portion (10b) of the cover (10) is
supported on at least one frame element (21 a, 30
21b, 22a, 22b) secured to a base surface and
extending in cantilever over a portion of the
linear opening (33) from the first upper edge
(31) towards the second upper edge (32); or
the cantilever portion (10b) of the cover (10) is 35
supported on at least one frame element (21a,
21b, 22a, 22b) secured to a base surface and
extending between the first and second upper
edges (31, 32) over the linear opening (33).

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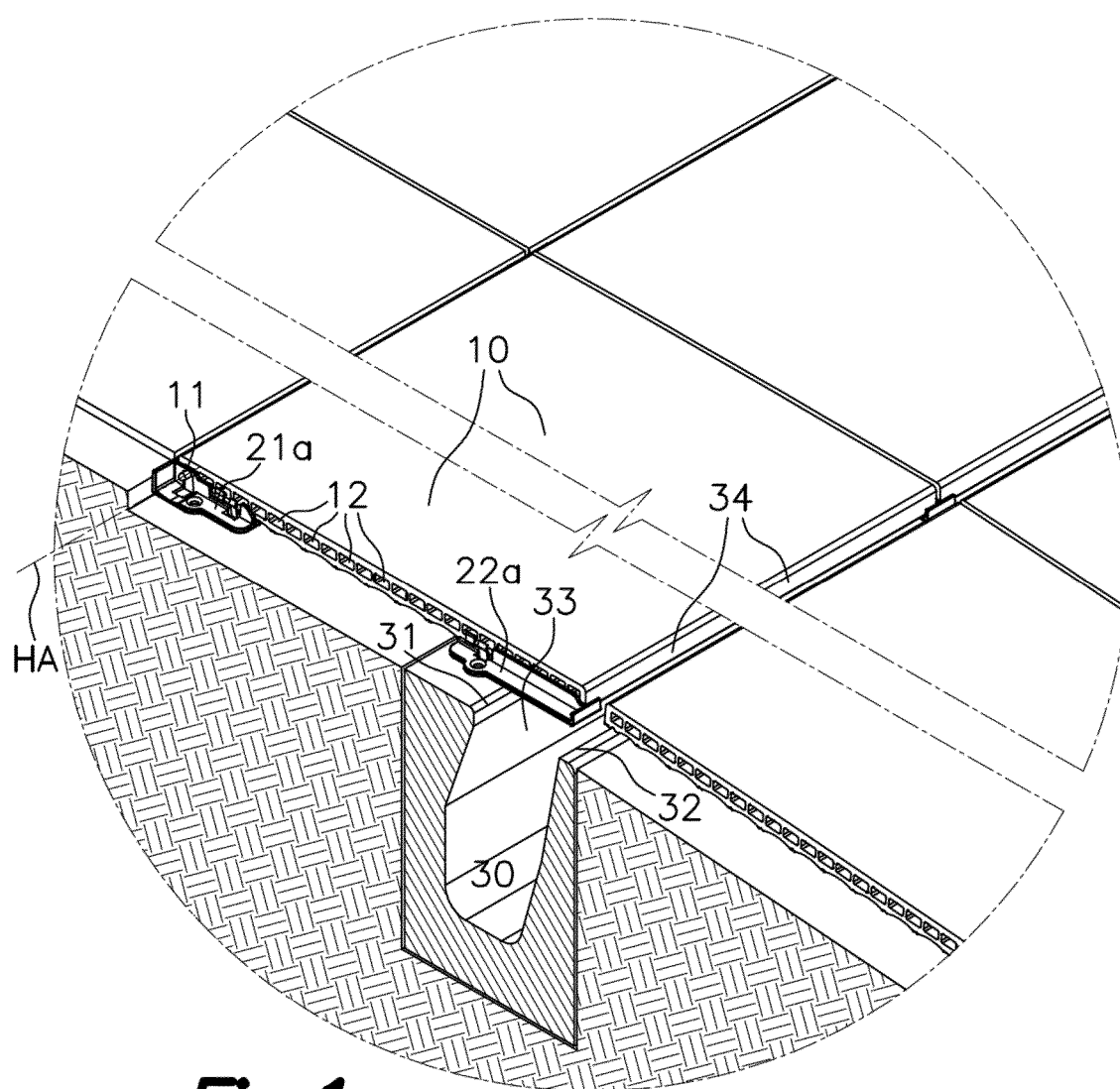


Fig. 1

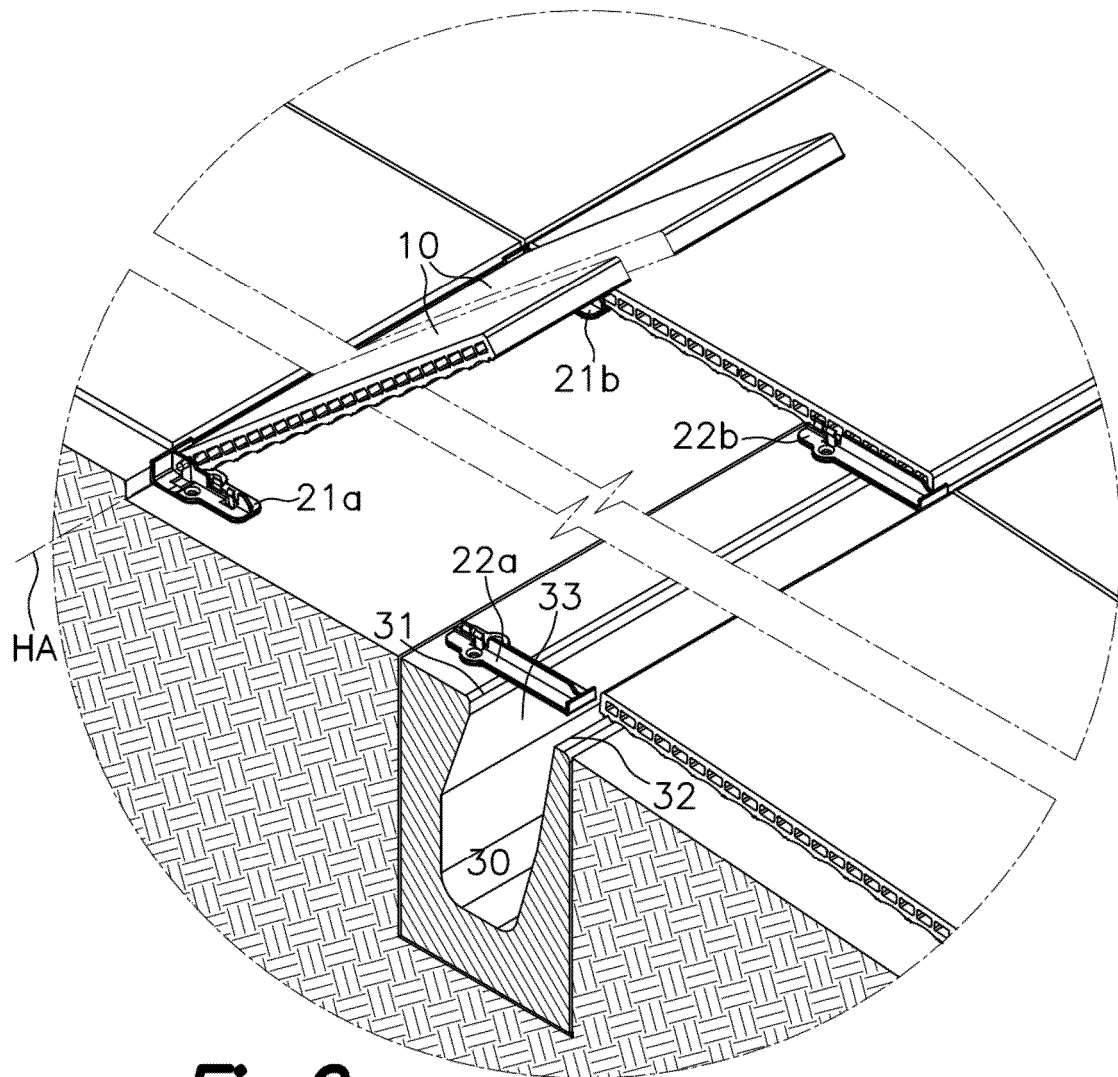


Fig.2

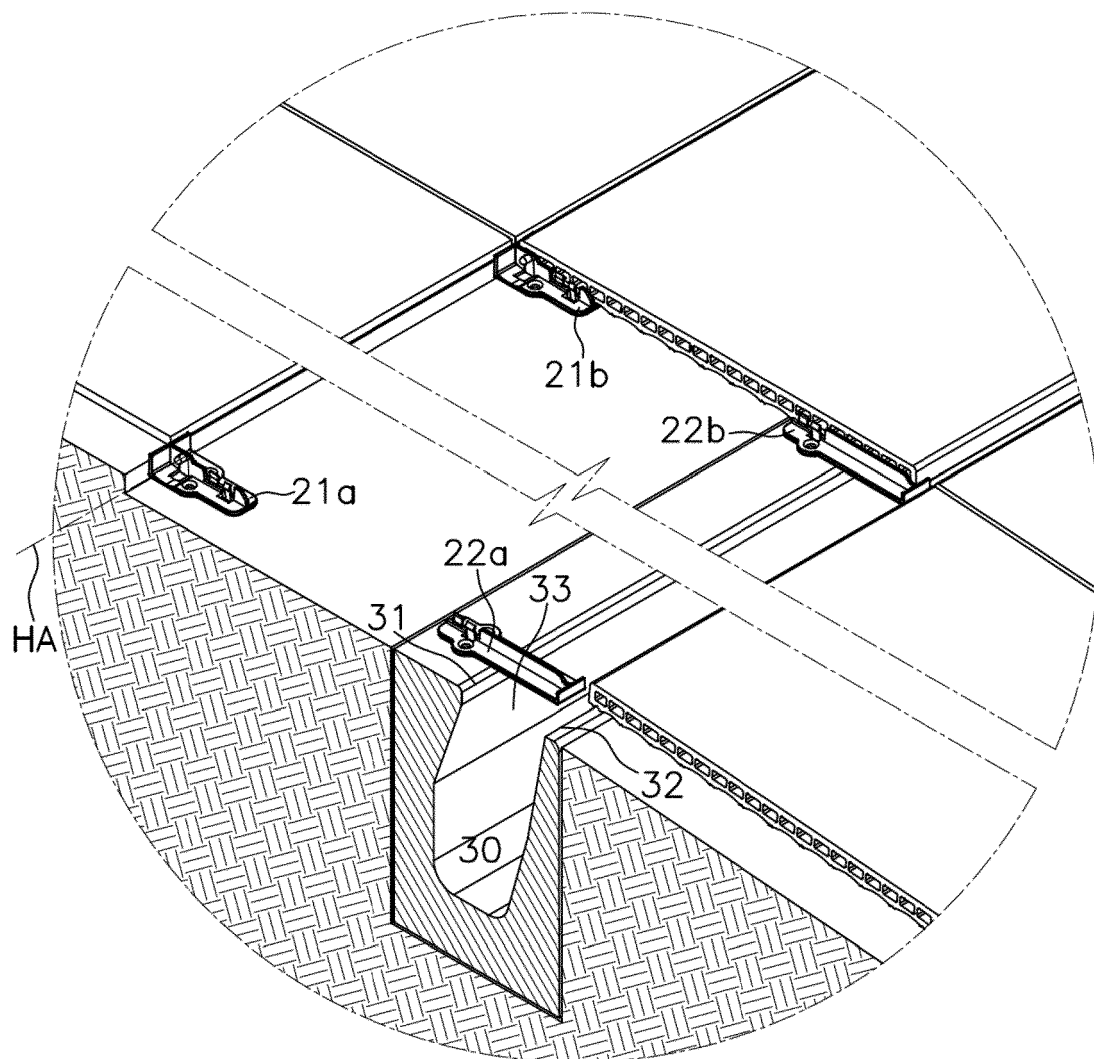
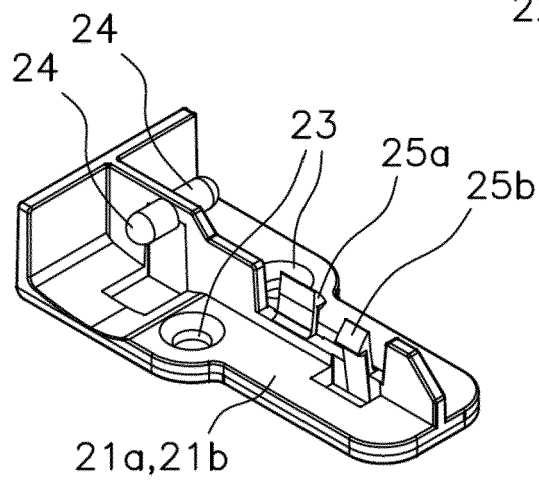
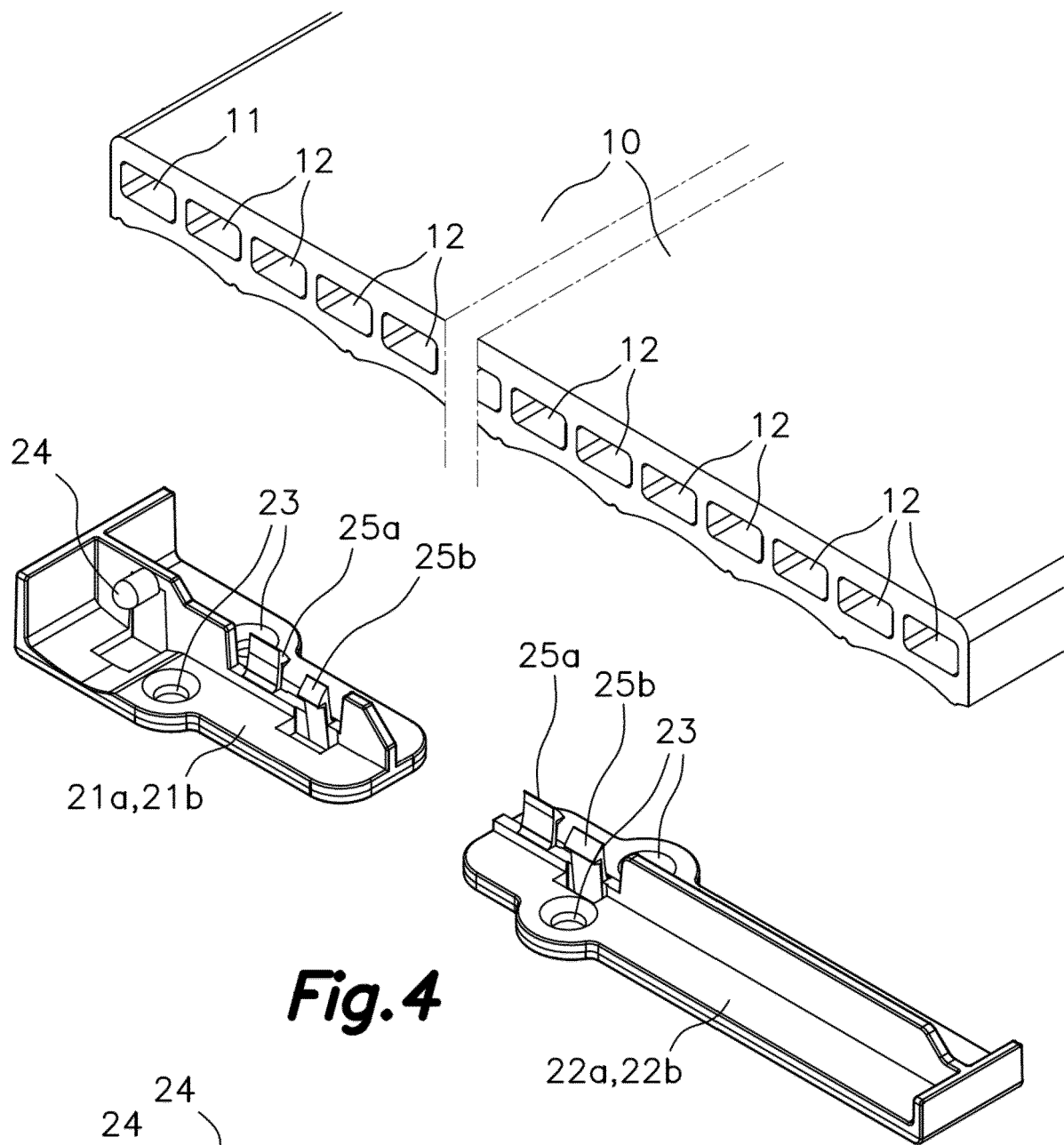


Fig.3



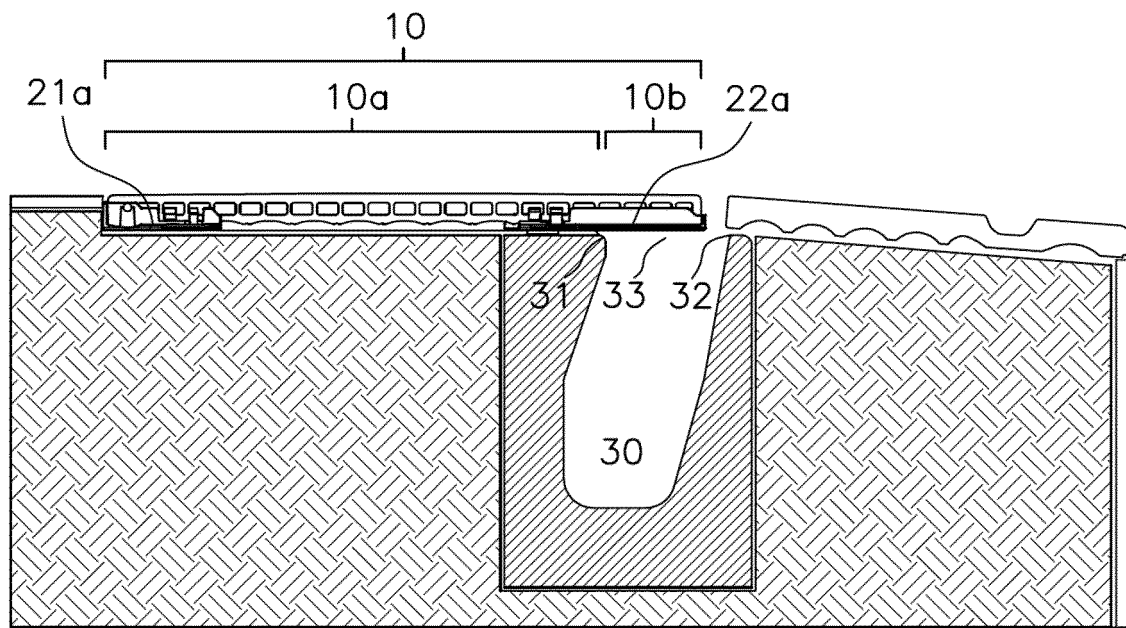


Fig. 6

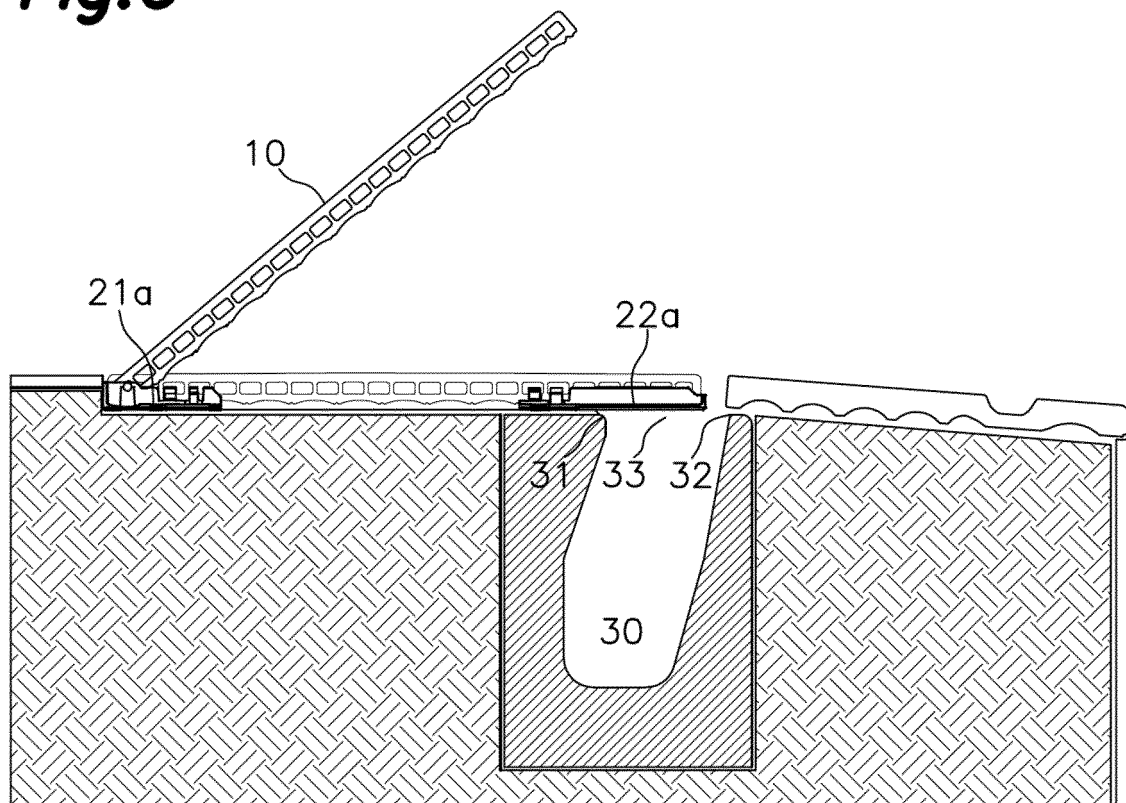
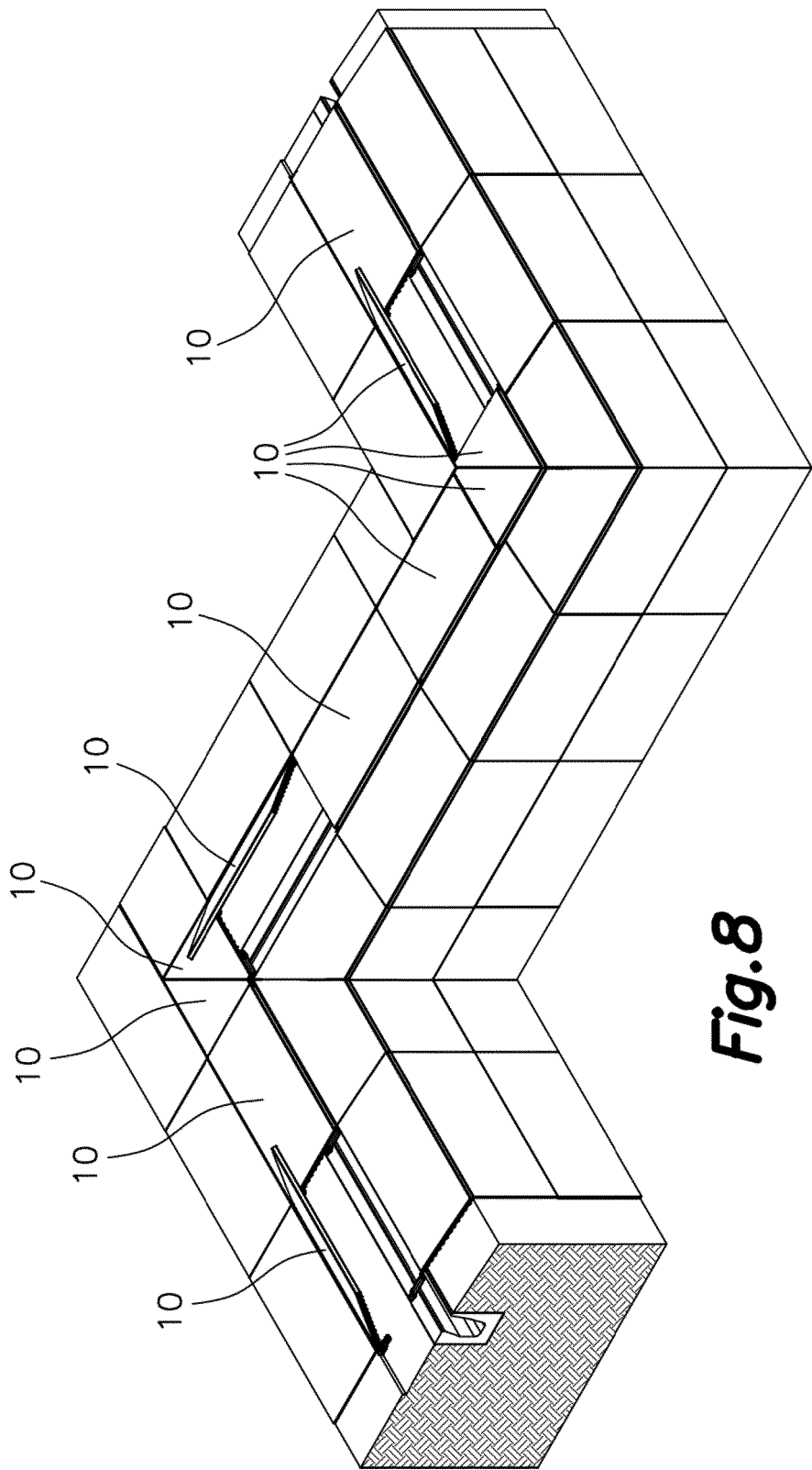


Fig. 7





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Application Number

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