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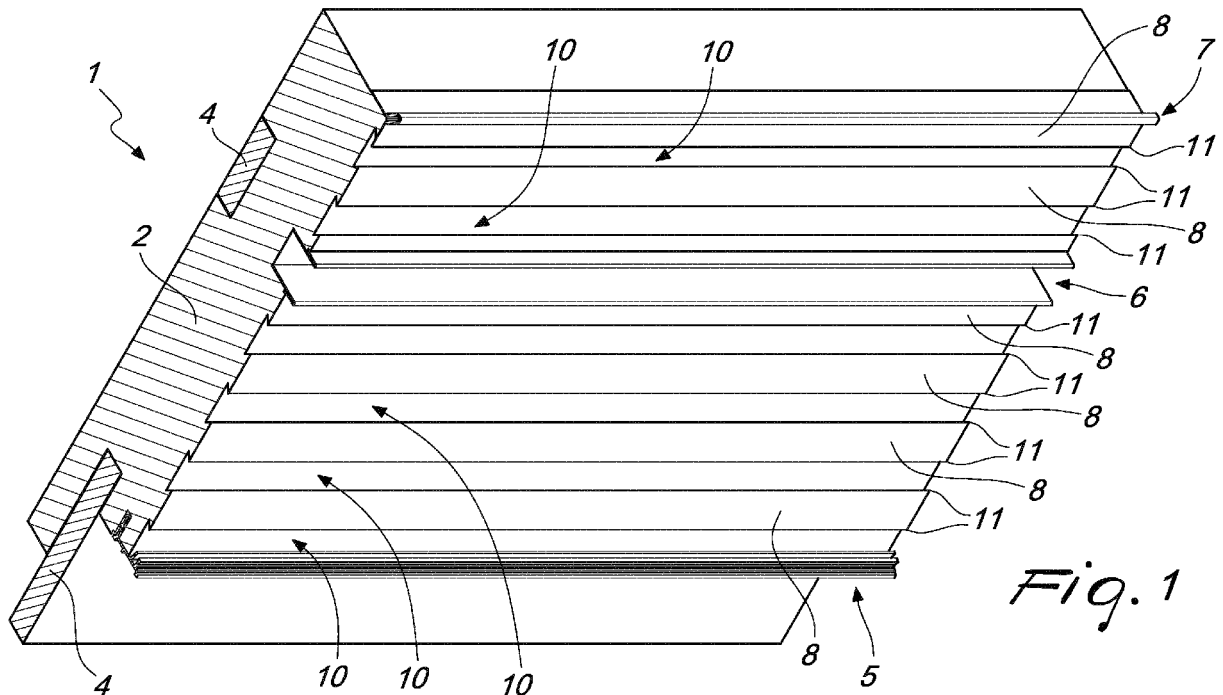
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(54)

WALL STRUCTURE FOR PLASTER

- (57)

A wall structure (1) for plaster, presenting a surface (8) that is adapted to the application of at least one layer (9) of plaster.
- One or more seats (10) are provided on the surface (8) for gripping the at least one layer (9) of plaster.



Description

[0001] The present invention relates to a wall structure for plaster.

[0002] Nowadays on wall surfaces or wall faces, it is known to distribute and smooth a layer of plaster as a finishing element, on which to then apply for example a subsequent tinting.

[0003] A problem that is encountered is the formation of cracks, which arise more frequently when for example profiles made of aluminum or PVC or galvanized sheet metal are inserted in the wall, or staff angles of aluminum or PVC are mounted on the corners of the wall.

[0004] Such cracks are produced by the different thermal dilation of heterogeneous materials.

[0005] Profiles of galvanized sheet metal are for example indicated for plasters based on lime, lime-cement, cement or plaster of Paris, while profiles of aluminum are indicated for plasters based on plaster of Paris and for grouting made of synthetic resin.

[0006] Problems also arise with the gripping of the plaster to such profiles and staff angles.

[0007] As a partial solution to the problem of the formation of cracks, it is known to apply a mesh on the surface of the wall prior to applying the plaster; however, this solution also presents drawbacks, in that the gripping is not always optimal, since cracks could still arise owing to the possible incorrect arrangement, dilation and/or non-conformance of the mesh.

[0008] The aim of the present invention is therefore to solve the above-mentioned technical problems, eliminating the drawbacks in the cited known art and thus devising a wall structure for plaster, on the flat surface of which one or more inserts or staff angles are applied, which makes possible the optimal application of at least one layer of plaster that will last over time.

[0009] Within the above aim, an object of the invention is to provide a wall structure for plaster invention that makes it possible to apply a layer of plaster on a wall which will be free from cracks over time.

[0010] Another object is to provide a wall structure for plaster that is also usable if there are inserts made of PVC for door or window frames, or staff angles, on the wall.

[0011] Another object is to provide a wall structure for plaster that can be provided with the usual systems and machinery and which is structurally simple.

[0012] This aim and these and other objects which will become better apparent hereinafter are achieved by a wall structure presenting a surface that is adapted to the application of at least one layer of plaster, characterized in that one or more seats are provided on said surface for gripping said at least one layer of plaster.

[0013] Further characteristics and advantages of the invention will become better apparent from the detailed description of a particular, but not exclusive, embodiment, illustrated by way of non-limiting example in the accompanying drawings wherein:

Figure 1 is a first perspective view of a section of wall structure according to the invention in which grip seats are provided;

Figure 2 is a front elevation view of the section of wall structure of the previous figure;

Figures 3, 4, 5, 6, 7, 8, 9 and 10 are side views of a section of wall structure in which different grip seats are provided.

[0014] In the embodiments illustrated, individual characteristics shown in relation to specific examples may in reality be interchanged with other, different characteristics, existing in other embodiments.

[0015] With reference to the figures, the reference numeral 1 generally designates a generic wall structure that can be used for a door, a roller blind, a bevel, an awning, a roll-up element or the like.

[0016] In Figures 1 and 2, the specific embodiment is a wall structure 1 such as a single-piece shoulder for plastering that can be used in order to provide for example the products that the applicant currently markets with the names/trademarks "INQUADRA", "RIQUADRA", "TIQUADRA" and all the solutions for plastering, and which are provided with a body 2 for smoothing-out made of EPS (for example complying with the percentage recycled materials specified by the minimum environmental criteria (CAM), with a thermal conductivity value equal to 0.034 W/m2k), which is associated with a profile with wall anchors 3, wood inserts 4, an end profile 5 made of PVC, a preguide 6 for a roll-up element, and a staff angle 7, all in order to obtain a product for the insulation of the window opening with window frames flush with the wall and centered in the wall, for a roll-up element, but also for shades, awnings, shutters or without any system of shade (window frame only).

[0017] The body 2 of the wall structure 1 has a surface 8 to be smoothed out, on which therefore at least one layer 9 of plaster can be applied.

[0018] On the surface 8 there are one or more seats 10 of a chosen shape, the function of which is to enable an optimal grip for the at least one layer 9 of plaster.

[0019] The seats 10 therefore advantageously are dovetail-shaped in cross-section, as shown in Figures 1, 2, 3 and 4.

[0020] This shape structure enables the plaster to grip the surface 8 in an optimal manner given that part of it comes to be positioned and retained under the teeth 11 defined with the dovetail-shaped machining.

[0021] Thus it has been found that the wall structure according to the invention fully achieves the intended aim and objects, a solution having been devised that makes it possible to obtain the optimal application of at least one layer of plaster, in so doing obtaining a uniformity of finish between rabbet and facade.

[0022] Furthermore, it is possible to use a staff angle or other accessories made of PVC, which are completely embedded in the plaster applied during the work, in the rabbet and in the facade, at the same time being free

from cracks.

[0023] The solution to the above aim and objects is also achieved by the embodiment illustrated in Figure 3 which makes it possible to achieve equal utility by using the same inventive concept.

[0024] In fact, a generic wall structure 1 has been illustrated, which is provided with staff angle 7 and end profile 5, but lacking a preguide 6, in which one or more seats 10 are provided on the surface 8 which are dovetail-shaped in cross-section.

[0025] Similarly, Figure 4 shows a wall structure 1 provided with a staff angle 7, three end profiles 5 and a preguide 6 for an awning, in which one or more seats 10 are provided on the surface 8 which are dovetail-shaped in cross-section.

[0026] Similarly, Figure 5 shows a wall structure 1 in which the body 2 also has a surface 8 on which multiple seats 10 are provided which have the shape of a sinusoidal wave in cross-section.

[0027] Similarly, Figure 6 shows a wall structure 1 in which the body 2 also has a surface 8 on which multiple seats 10 are provided which are triangular in cross-section.

[0028] Similarly, Figure 7 shows a wall structure 1 in which the body 2 also has a surface 8 on which multiple seats 10 are provided which are semicircular in cross-section.

[0029] Similarly, Figure 8 shows a wall structure 1 in which the body 2 also has a surface 8 on which multiple seats 10 are provided which have the shape of a scalene trapezoid in cross-section so as to define a sequence of teeth 11 which extend on an inclined plane in the same direction as, or in a different direction to, that of said surface 8.

[0030] Similarly, Figure 9 shows a wall structure 1 in which the body 2 also has a surface 8 on which multiple seats 10 are provided which are hexagonal in cross-section so as to define a sequence of teeth 11 which are arranged, for each seat 10, mutually opposite.

[0031] Similarly, Figure 10 shows a wall structure 1 in which the body 2 also has a surface 8 on which multiple seats 10 are provided which are rectangular in cross-section.

[0032] The invention is of course susceptible of numerous modifications and variations, all of which have equal utility and are within the scope of the appended claims.

[0033] The materials used, as well as the dimensions that constitute the individual components of the invention, may of course be more pertinent according to the specific requirements.

[0034] The various means of achieving certain different functions certainly need not coexist only in the embodiment shown, but may be present in many embodiments, even if they are not shown.

[0035] The characteristics indicated above as advantageous, convenient or the like, may also be missing or be substituted by equivalent characteristics.

[0036] The disclosures in Italian Utility Model Applica-

tion No. 202023000001581 from which this application claims priority are incorporated herein by reference.

[0037] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A wall structure (1) presenting a surface (8) that is adapted to the application of at least one layer (9) of plaster, **characterized in that** one or more seats (10) are provided on said surface (8) for gripping said at least one layer (9) of plaster.
2. The wall structure (1) according to claim 1, **characterized in that** it comprises a single-piece shoulder for plastering, which has a body (2) for smoothing-out which is associated with a profile with wall anchors (3), wood inserts (4), an end profile (5) made of PVC, a preguide (6) for a roll-up element, and a staff angle (7), said body (2) having said surface (8) to be smoothed out on which said one or more seats (10) are provided which are dovetail-shaped in cross-section.
3. The wall structure (1) according to one or more of the preceding claims, **characterized in that** said at least one layer (9) of plaster is positioned and retained below teeth (11) which are defined with dovetail-shaped machining.
4. The wall structure (1) according to claim 1, **characterized in that** it comprises a single-piece shoulder for plastering which has a body (2) for smoothing-out which is associated with a staff angle (7) and an end profile (5), said body (2) having on said surface (8) said one or more seats (10) which are dovetail-shaped in cross-section.
5. The wall structure (1) according to claim 1, **characterized in that** it has a body (2) for smoothing-out which is associated with a staff angle (7), three end profiles (5), and a preguide (6) for an awning, on said surface (8) there being said one or more seats (10) which are dovetail-shaped in cross-section.
6. The wall structure (1) according to claim 1, **characterized in that** it has a body (2) for smoothing-out which has said surface (8) on which multiple of said seats (10) are provided which have the shape of a sinusoidal wave in cross-section.
7. The wall structure (1) according to claim 1, **charac-**

terized in that it has a body (2) for smoothing-out which has said surface (8) on which multiple of said seats (10) are provided which are triangular in cross-section.

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8. The wall structure (1) according to claim 1, **characterized in that** it has a body (2) for smoothing-out which has said surface (8) on which multiple of said seats (10) are provided which are semicircular in cross-section.

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9. The wall structure (1) according to claim 1, **characterized in that** it has a body (2) for smoothing-out which has said surface (8) on which multiple of said seats (10) are provided which have the shape of a scalene trapezoid in cross-section so as to define a sequence of teeth (11) which extend on an inclined plane in the same direction as that of said surface (8).

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10. The wall structure (1) according to claim 1, **characterized in that** it has a body (2) for smoothing-out which has said surface (8) on which multiple of said seats (10) are provided which have the shape of a scalene trapezoid in cross-section so as to define a sequence of teeth (11) which extend on an inclined plane in a chosen direction and inclination with respect to that of said surface (8).

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11. The wall structure (1) according to claim 1, **characterized in that** it has a body (2) for smoothing-out which has said surface (8) on which multiple of said seats (10) are provided which are hexagonal in cross-section so as to define a sequence of teeth (11) which are arranged, for each one of said seats (10), mutually opposite.

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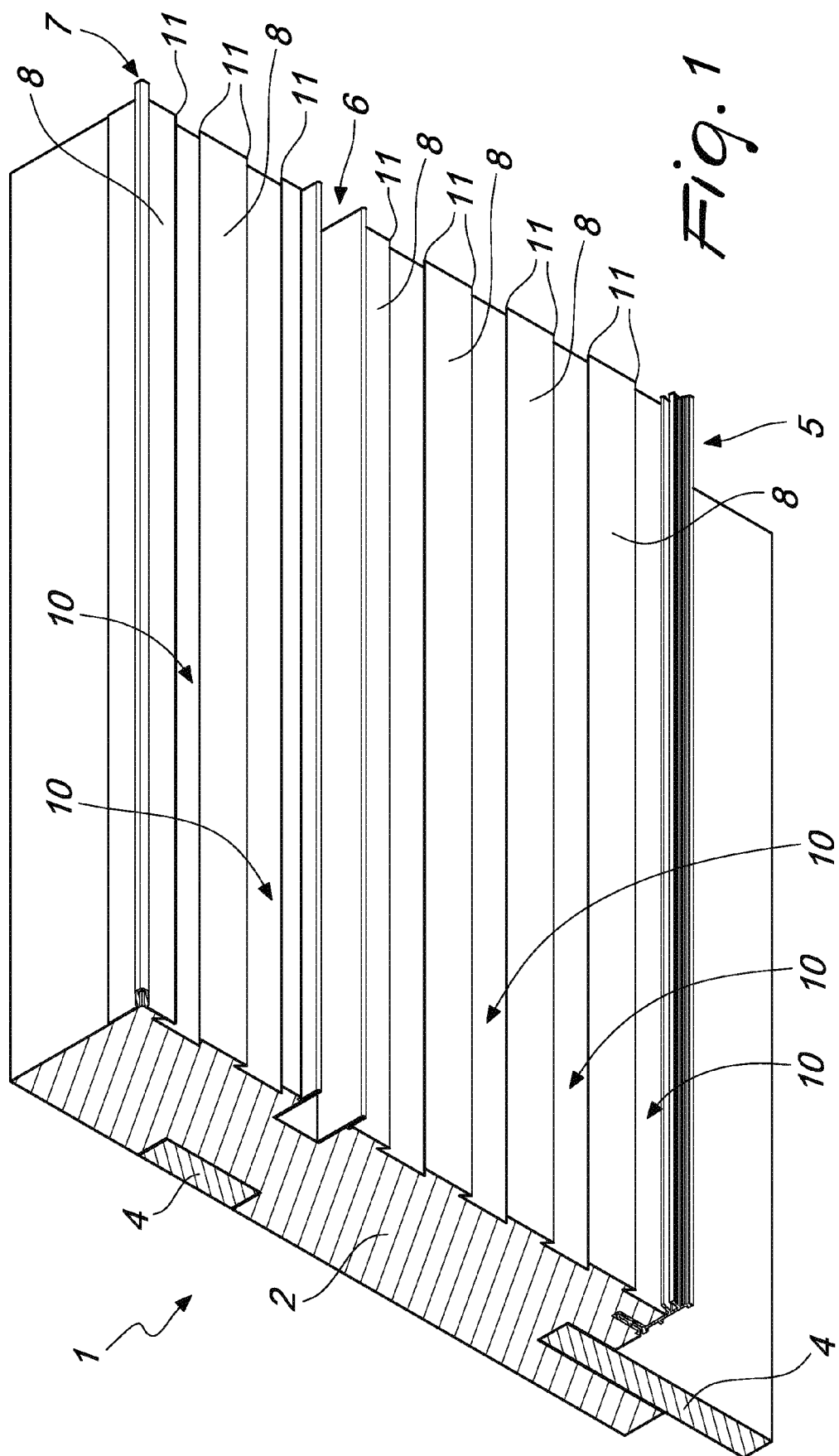
12. The wall structure (1) according to claim 1, **characterized in that** it has a body (2) for smoothing-out which has said surface (8) on which multiple of said seats (10) are provided which are rectangular in cross-section.

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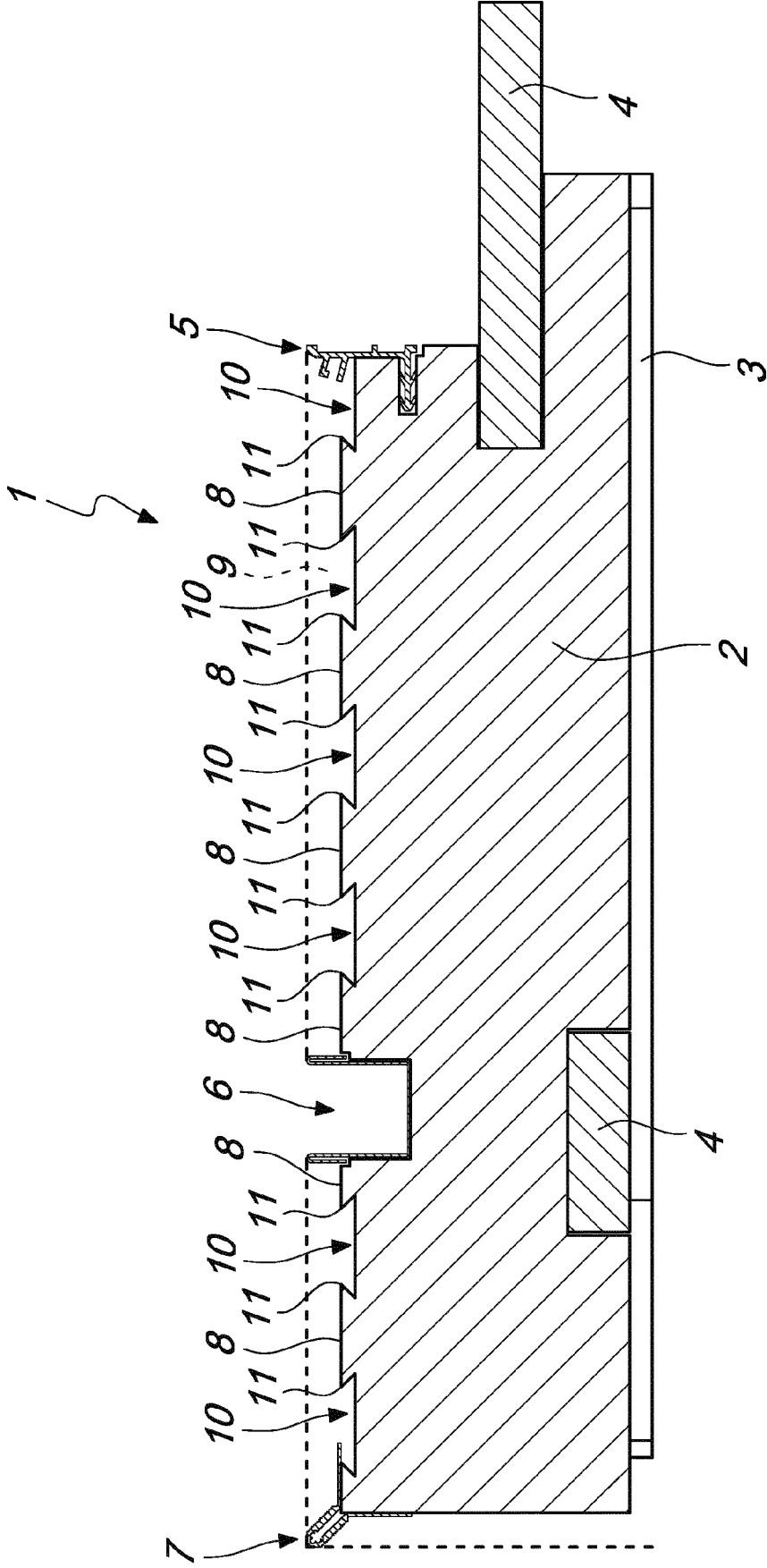


Fig. 2

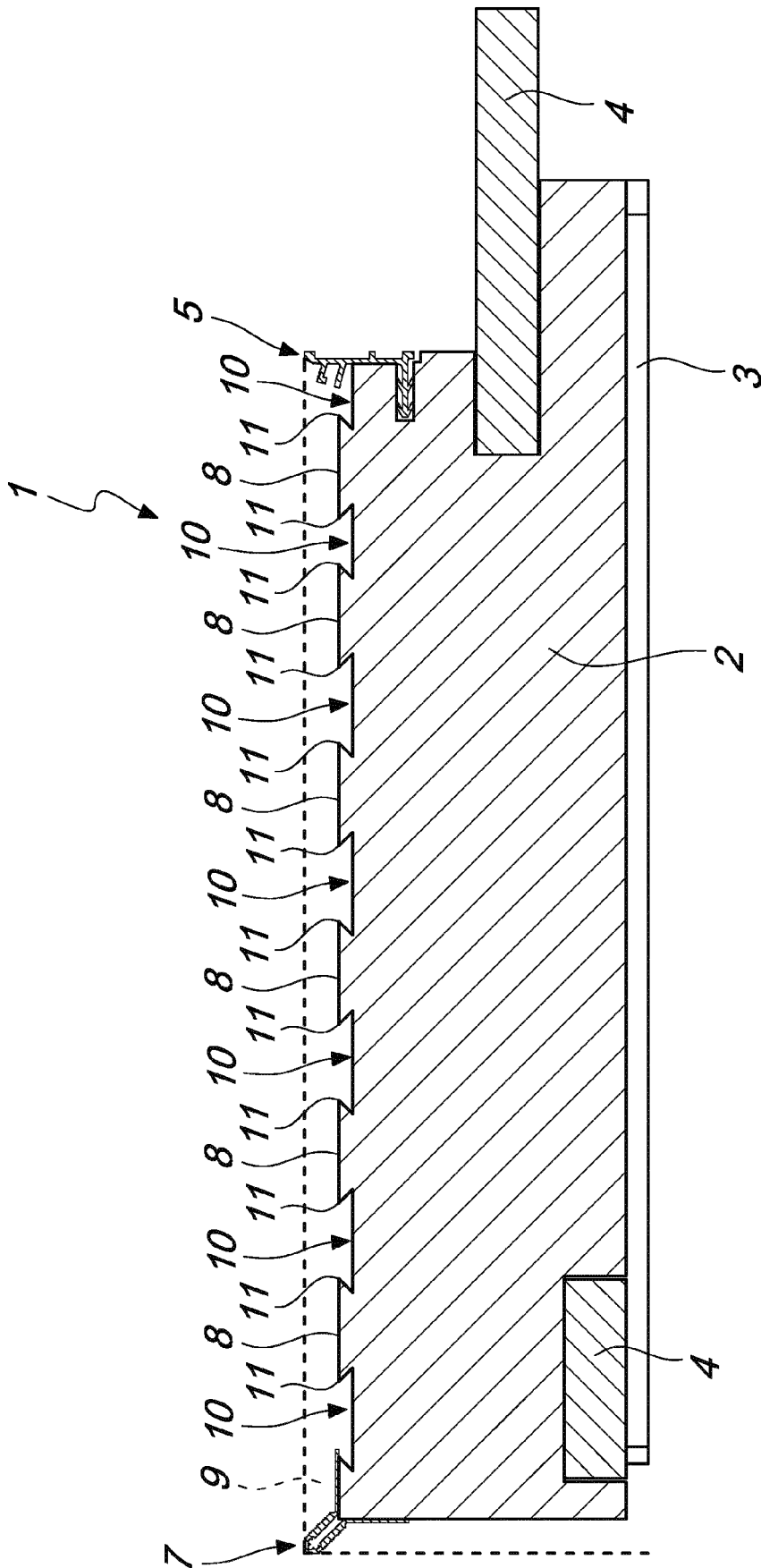


Fig. 3

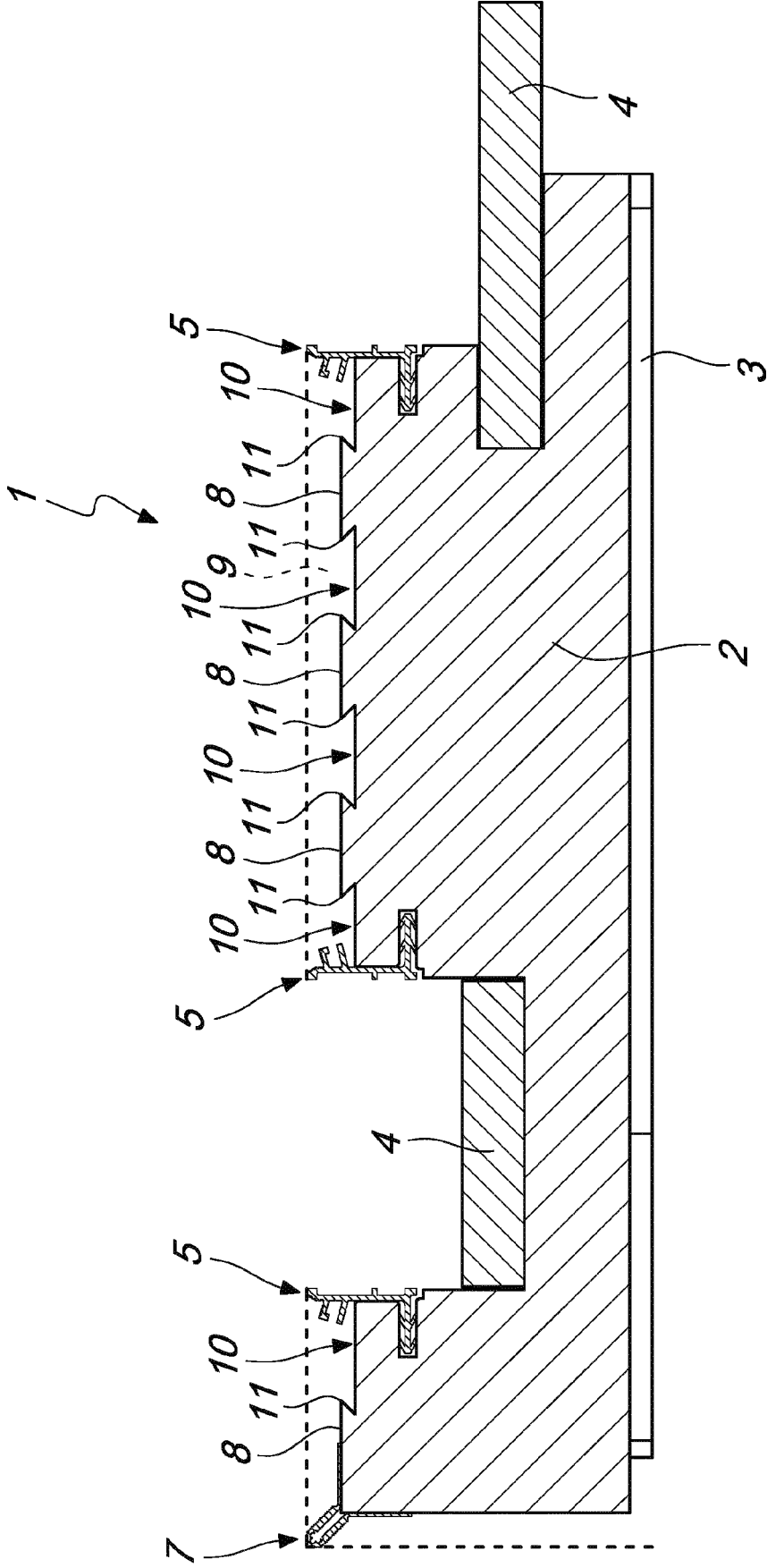
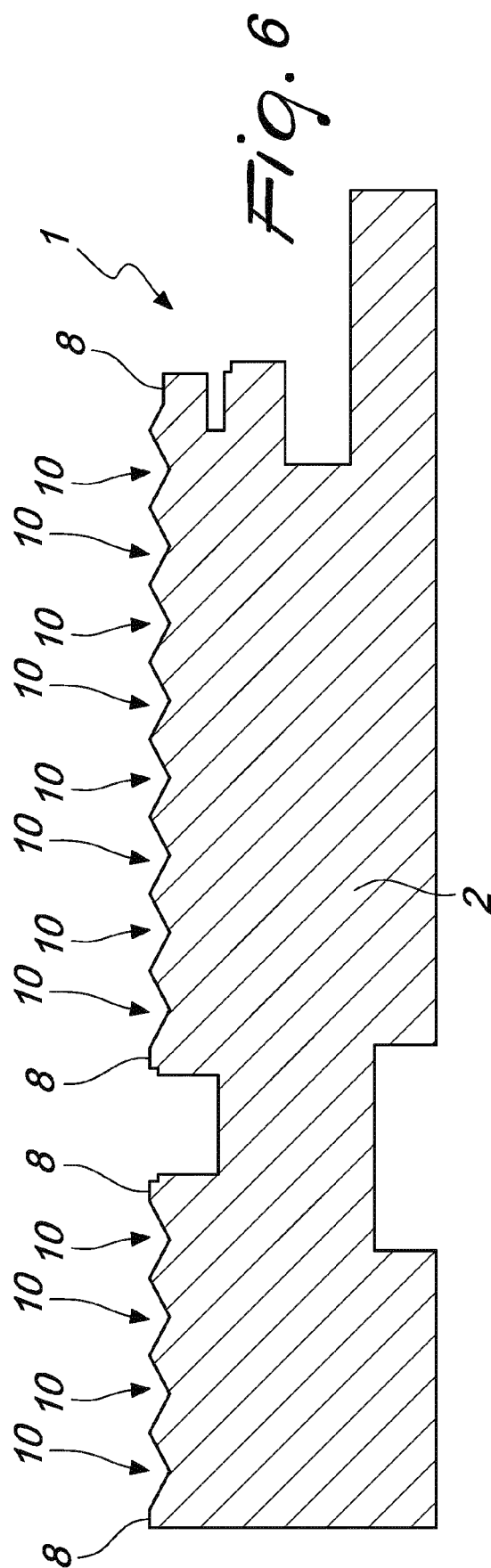
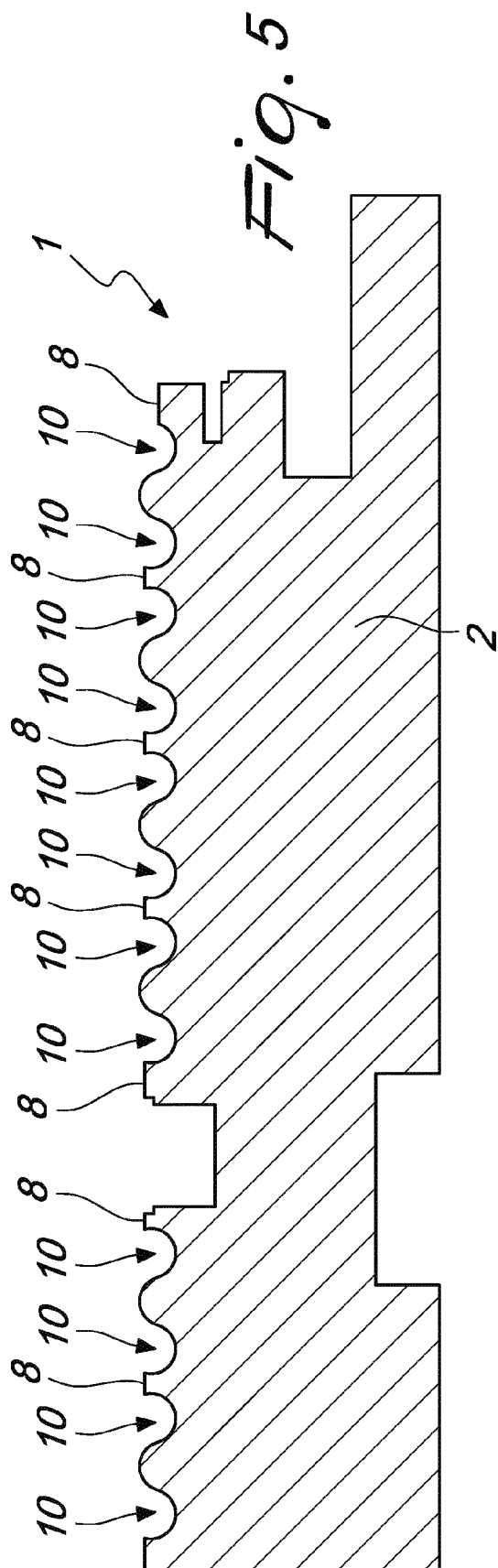
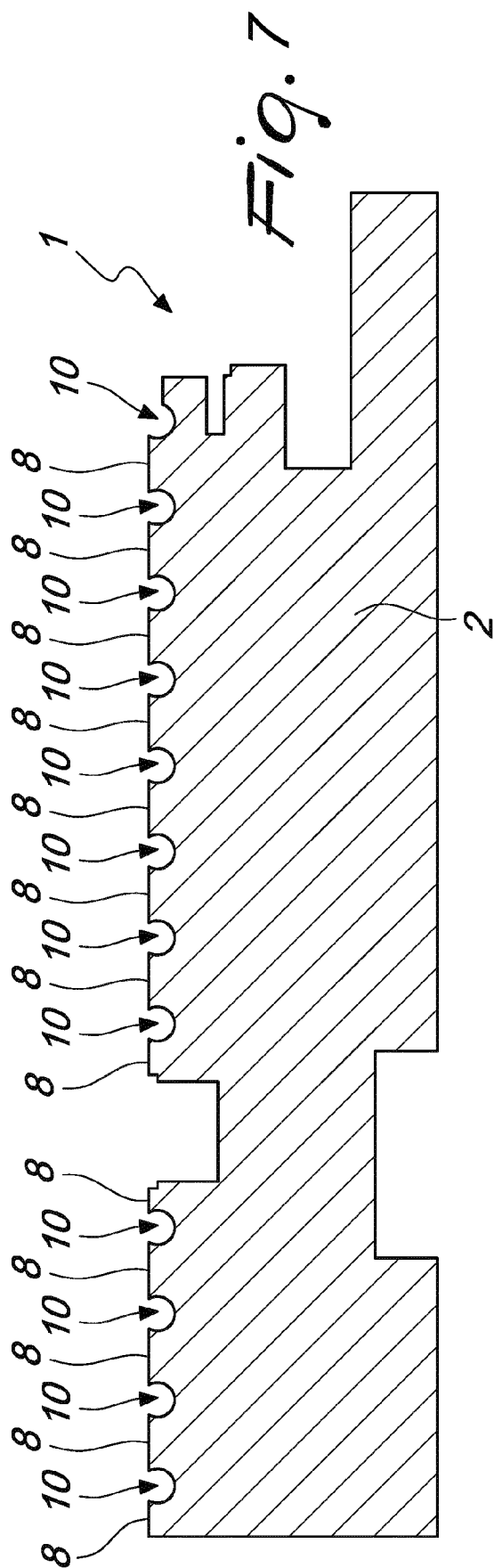
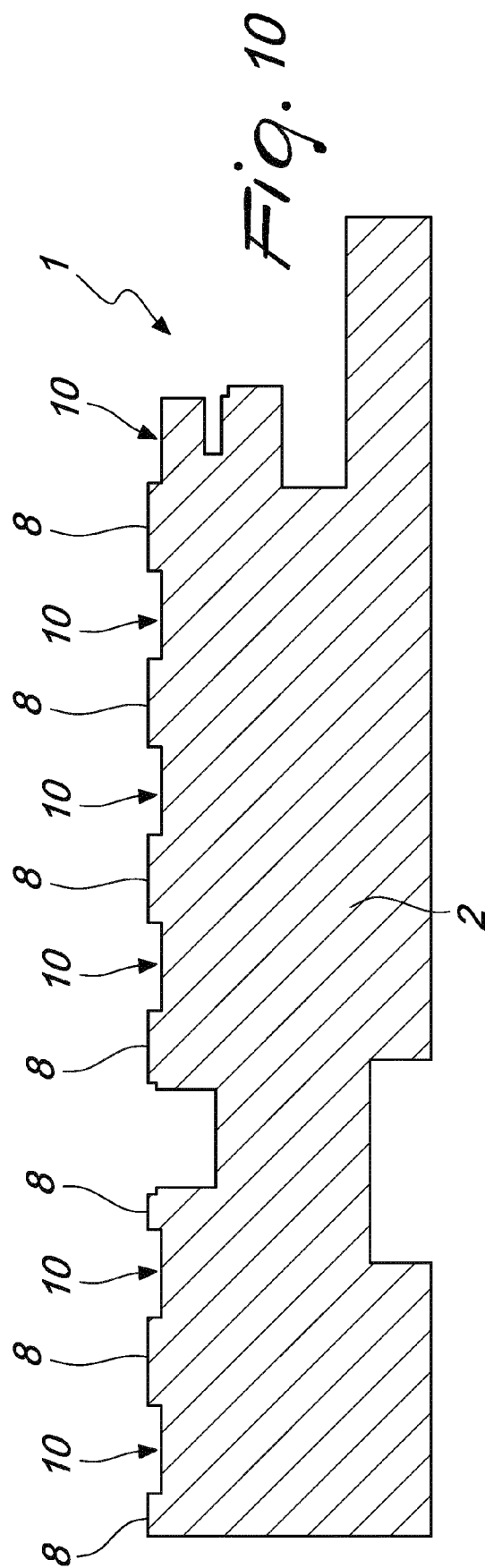
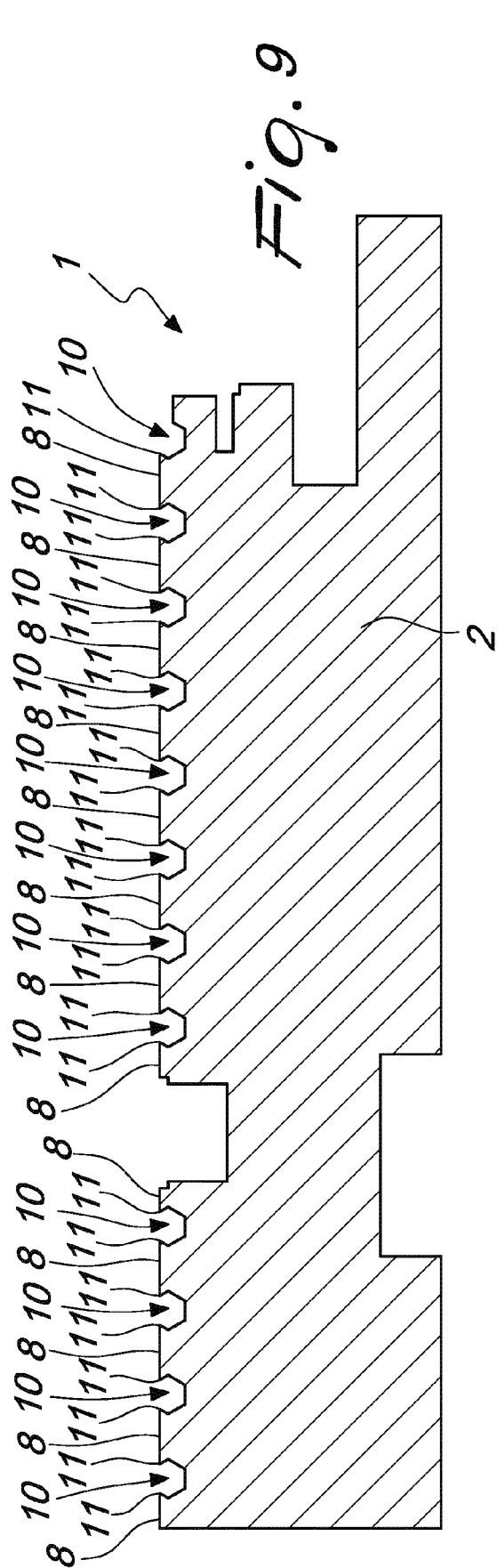


Fig. 4









EUROPEAN SEARCH REPORT

Application Number

EP 24 16 9802

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EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 20 2009 001792 U1 (ALUKON GMBH & CO KG [DE]) 30 April 2009 (2009-04-30) * paragraph [0040]; figures 1-6 * -----	1-12	INV. E04B1/76
X	US 2018/245335 A1 (SCHLÜTER WERNER [DE]) 30 August 2018 (2018-08-30) * abstract; figures 1-4 * -----	1-12	ADD. E06B9/17
X	FR 2 561 281 A1 (FOUGEROLLE FRANCE [FR]) 20 September 1985 (1985-09-20) * abstract; figure 4 * -----	1-12	
A	IT 2020 0000 3587 A1 (SERROMARCHE SRL [IT]) 21 August 2021 (2021-08-21) * the whole document * -----	1,2	
			TECHNICAL FIELDS SEARCHED (IPC)
			E04B E06B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 4 September 2024	Examiner Galanti, Flavio
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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ON EUROPEAN PATENT APPLICATION NO.

EP 24 16 9802

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04-09-2024

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 202009001792 U1	30-04-2009	NONE	
US 2018245335 A1	30-08-2018	CA 2995763 A1	23-03-2017
		DE 202015104913 U1	19-12-2016
		DK 3350383 T3	25-05-2020
		EP 3350383 A1	25-07-2018
		ES 2794626 T3	18-11-2020
		PT 3350383 T	04-05-2020
		US 2018245335 A1	30-08-2018
		WO 2017046162 A1	23-03-2017
FR 2561281 A1	20-09-1985	NONE	
IT 202000003587 A1	21-08-2021	NONE	

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- IT 202023000001581 [0036]