(19) Europäisches Patentamt
European Patent Office
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(11) **EP 3 862 509 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
11.08.2021 Bulletin 2021/32

(51) Int Cl.:
E04F 19/04 *(2006.01)* ***E04F 19/06*** *(2006.01)*

(21) Application number: **20178533.4**

(22) Date of filing: **05.06.2020**

(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 MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

(30) Priority: **07.02.2020 ES 202030203 U**

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(54) **DETACHABLE BASEBOARD**

(57) The baseboard object of the present invention is formed by two profiles, an inner profile and an outer profile. The inner profile is fastened to the same surface to which the cladding panels are fastened, usually screwed to the omega shapes or to the uprights of the support structure of said panels, although it could also be directly fastened to a wall in the case of the direct linings. The tools and anchoring elements used for the installation thereof are the same as those used for the installation of the cladding panels. Moreover, the outer profile has an outer face, i.e. the visible face once the baseboard has been installed, which has the desired finish. The inner face of the outer profile and the outer face of the inner profile (the faces of both profiles facing each other) comprise cooperating elements for coupling by means of elastic retention which enable the coupling between both profiles and the decoupling thereof when a small pulling force towards the outside is exerted on the outer profile (once the inner profile has been fastened).

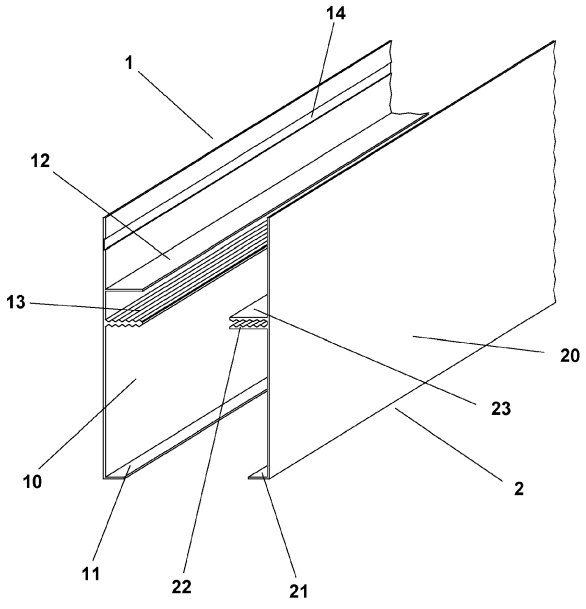

Fig. 6

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Description

[0001] The present invention relates to a detachable baseboard for the installation thereof in partitions or linings of walls made from one or more cladding panels.

State of the art

[0002] A baseboard is a part which is placed at the base of the partitions or walls of rooms as an aesthetic element and to protect them from impacts or friction.

[0003] As discussed in the previous paragraph, the present invention relates to a detachable baseboard for the installation thereof in partitions or linings of walls made from one or more cladding panels, and is particularly suitable for the installation thereof in partitions or linings of walls made from laminated plaster panels.

[0004] In the case of partitions made of laminated plaster panels, they are normally formed by a light metal structure of rails and uprights, on each side of which one or more laminated plaster panels are fastened (they are usually screwed). As for the linings, there are the direct ones, wherein the laminated plaster panels are directly adhered to the wall by means of gripper paste; those with metal structures with omega shapes, which are metal profiles mechanically fastened to the support wall to which the laminated plaster panels are fastened; or those with a self-supporting structure, wherein the panels are fastened to a structure fastened in turn to the wall.

[0005] In any of these cases, the arrangement of baseboards is common, as well as on any type of wall. In this case, the baseboards can be superimposed (the baseboard is fastened directly on the surface of the wall); integrated (the baseboard is flush with the surface of the wall); or recessed (wherein the outer panel is located at a ground distance, and the baseboard is installed below it, either fastened to an inner panel or to the support structure of the panels).

[0006] In the case of integrated baseboards (and sometimes recessed baseboards), the thickness of the cladding panel and the baseboard must be adapted in order to achieve the desired effect.

[0007] One of the problems of baseboards is the installation thereof. These are usually installed by being glued, nailed or screwed. First of all, any carelessness of the person who is assembling the baseboard can cause erosion or staining of the wall whereon it is being installed. Furthermore, when a baseboard has to be changed, either due to wear, due to an aesthetic change, or for any other reason, the removal thereof can cause the same problems mentioned above.

[0008] Another problem is that it takes a considerable amount of time once the panels have been installed, the baseboard needing to be screwed, nailed or glued.

[0009] To solve the mentioned problems, the present invention describes a detachable baseboard which facilitates the installation of a baseboard, significantly minimizes the installation time, makes the replacement thereof possible, avoiding the problems of erosion or dirt on the wall surface mentioned previously.

[0010] In addition to the advantages described in the previous paragraph, the baseboard object of the present invention is suitable for cladding panels with different thicknesses.

[0011] Finally, the baseboard object of the present invention provides a hole that is easily accessible along the walls whereon it is installed for the passage of cables.

Description of the invention

[0012] In the present description, the terms "lower", "upper", "inner", "outer" or any other positional indication of the different elements refer to the baseboard once it has been installed, in other words, "lower" is the portion closest to the ground and "upper" the farthest away, and "outer" is the portion closest to the visible face of the wall and "inner" the farthest away.

[0013] The present invention constitutes a baseboard comprising all the advantages that have been explained above.

[0014] The baseboard object of the present invention is formed by two profiles, an inner profile and an outer profile. Normally the inner and outer profiles are metal profiles, and preferably metal profiles made of aluminum.

[0015] The inner profile is fastened to the same surface to which the cladding panels are fastened, usually screwed to the omega shapes or to the uprights of the support structure of said panels, although it could also be directly fastened to a wall in the case of the direct linings. The tools and anchoring elements used for the installation thereof are the same as those used for the installation of the cladding panels. Moreover, the outer profile has an outer face, i.e. the visible face once the baseboard has been installed, which has the desired finish.

[0016] The inner face of the outer profile and the outer face of the inner profile (the faces of both profiles facing each other) comprise cooperating elements for coupling by means of elastic retention which enable the coupling between both profiles and the decoupling thereof when a small pulling force towards the outside is exerted on the outer profile (once the inner profile has been fastened).

[0017] The inner profile is formed by a main body comprising in its outer face one or more extensions perpendicular to said main body, and the outer profile is formed by a main body comprising a set of extensions, wherein the extensions of one of the profiles are introduced between the extensions of the other profile, and are retained by means of an elastic retention.

[0018] According to an embodiment option, both the inner profile and the outer profile are formed by a flat main body, one of them comprising a pair of insertion extensions perpendicular to said main body, and the other comprising a pair of housing extensions of the insertion extensions, wherein the insertion extensions are intro-

duced between the housing extensions, being the insertion extensions retained by elastic retention between the housing extensions.

[0019] According to an embodiment option, both the inner profile and the outer profile are formed by a flat main body, one of them comprising an insertion extension perpendicular to said main body, which in turn comprises at least one projection, and the other comprising a housing for said projection which, once the projection has been inserted into the housing, exerts an elastic retention thereon. Either of the two profiles (inner or outer) may comprise the insertion extension, the other one comprising the housing.

[0020] According to an embodiment option, the insertion extension comprises a projection on the end of the upper face thereof and a projection on the end of the lower face thereof, and the housing is formed by a pair of extensions which are parallel and perpendicular to the main body, comprising on the faces facing each other a set of recesses corresponding with the projections of the extension of the other profile, the inner and outer profiles being able to be coupled by means of the insertion of the projection (projection is understood as a pair of projections of the upper and lower faces of the insertion extension) in any of the housings formed by the recesses of the pair of housing extensions.

[0021] According to an embodiment option, the insertion extension comprises a set of projections both on the upper face thereof and on the lower face thereof, and the housing is formed by a pair of extensions which are parallel and perpendicular to the main body, comprising on the faces thereof facing each other a set of recesses corresponding with the projections of the extension of the other profile, the inner and outer profiles being able to be coupled by means of the insertion of the first projection (projection is understood as pair of projections of the upper and lower faces of the insertion extension) of the end of the insertion extension into the first housing of the end of the pair of housing extensions, and the inner and outer profiles being able to be coupled by means of the insertion of all the projections of the end of the insertion extension into the first housing of the end of the pair of housing extensions.

[0022] In either of the two described embodiment options, the inner and outer profiles can be coupled to each other at different distances. Despite the fact that the projections are elastically retained in the housings, only a small pushing force is required to couple both profiles and a small pulling force is required to uncouple them, this operation being able to be performed by anyone.

[0023] Preferably one of the two, or both profiles comprise a lower flange which extends perpendicularly from the lower end of the main body (in the case of the inner profile it will extend from the outer face, and in the case of the outer profile it will extend from the inner face), this lower flange acting as support against the ground.

[0024] In an embodiment option, the inner profile further comprises an upper flange, arranged above the coupling elements, acting as support for the cladding panels and as a reference plane for the correct installation and adjustment of the panels to the correct height with respect to the inner profile.

[0025] According to an optional embodiment, the inner profile may further comprise a recess or set of recesses in the main body whereon the screws which fasten the inner profile are screwed, thus facilitating the assembly thereof.

[0026] According to an alternative embodiment, the main body of the outer profile is not flat, but rather forms a longitudinal gap wherein a lighting element, such as an LED strip, can be installed.

[0027] The baseboard object of the present invention is also suitable for the installation thereof on a wall of any type comprising a lower recess, this use not being very common.

Brief description of the drawings

[0028] As a complement to the description provided herein, and for the purpose of helping to make the features of the invention more readily understandable, in accordance with a preferred practical exemplary embodiment thereof, said description is accompanied by a set of figures constituting an integral part of the same, which by way of illustration and not limitation, represent the following:

Figure 1 shows a schematic view of a transverse cross section of the inner profile of the baseboard object of the invention according to an embodiment of the present invention.

Figure 2 shows a schematic view of a transverse cross section of the outer profile of the baseboard object of the invention according to an embodiment of the present invention.

Figure 3 shows a schematic view of a transverse cross section of an outer profile of the baseboard object of the invention which forms a housing for an LED strip, according to an embodiment of the present invention.

Figure 4 shows a schematic view of a transverse cross section of the inner and outer profiles of figures 1 and 2 coupled together, according to an embodiment of the present invention.

Figure 5 shows a schematic view of a transverse cross section of the inner and outer profiles of figures 1 and 2 coupled to each other, but arranged for a thicker plaster panel, according to an embodiment of the present invention.

Figure 6 shows a perspective view of a portion of the baseboard formed by the inner and outer profiles of

figures 1 and 2, according to an embodiment of the present invention.

Figure 7 shows a perspective view of a portion of the baseboard formed by the inner profile of figure 1 and the outer profile of figure 3, according to an embodiment of the present invention.

Figure 8 shows a schematic view of a transverse cross section of the inner profile of the baseboard object of the invention according to an embodiment of the present invention, wherein the inner profile comprises a pair of housing extensions.

Figure 9 shows a schematic view of a transverse cross section of the outer profile of the baseboard object of the invention according to an embodiment of the present invention, wherein the outer profile comprises a pair of insertion extensions.

Figure 10 shows a schematic view of a transverse cross section of the inner and outer profiles of figures 8 and 9 coupled together, according to an embodiment of the present invention.

Figure 11 shows a schematic view of a transverse cross section of an outer profile of the baseboard object of the invention, which comprises a pair of insertion extensions, and which forms a housing for an LED strip, according to an embodiment of the present invention.

Description of the preferred embodiment of the invention

[0029] In light of the aforementioned figures, and in accordance with the adopted numbering, one may observe therein an example of a preferred embodiment of the invention, which comprises the parts and elements indicated and described in detail below.

[0030] The baseboard object of the present invention is formed by two profiles, an inner profile (1) and an outer profile (2).

[0031] Thus, as seen in figure 1, the inner profile (1) is a profile formed by a flat main body (10); a lower flange (11) which extends perpendicularly from the lower end of the outer face of the main body (10), and an upper flange (12) which extends perpendicularly from the upper portion of the outer face of the main body (10). Between the upper (12) and lower (11) flanges of the inner profile (1) there is an extension (13) perpendicular to the main body (10), said extension (13) comprising a set of projections both on the upper face thereof and on the outer face thereof. The inner profile (1) further comprises a longitudinal recess (14) located between the upper flange (12) and the upper end of the main body (10), suitable for placing screws (4) thereon for fastening the inner profile.

[0032] Moreover, figure 2 shows an embodiment of the outer profile (2), said outer profile being formed by a flat main body (20) comprising a lower flange (21) which extends perpendicularly from the lower end of the outer face of the main body (20). The outer profile (2) forms a housing for the extension (13) of the inner profile. The housing is formed by a pair of extensions (22, 23) which are parallel and perpendicular to the main body (20), comprising on the faces thereof facing each other a set of recesses corresponding with the projections of the extension (13) of the inner profile (1).

[0033] According to an alternative embodiment, shown in figure 3, the main body (20) of the outer profile (2) forms a longitudinal gap with a rectangular cross section wherein an LED strip can be arranged, the upper and lower walls of said longitudinal gap comprising corresponding longitudinal notches (26) for the elastic fastening of a diffuser (27) comprising tabs corresponding with said notches, the diffuser (27) being coupled to the profile by means of an elastic retention of said tabs in the notches (26). In the embodiment shown, the upper wall of the longitudinal gap coincides with the lower extension (22), although this is not necessary. The lower wall further comprises a reinforcing portion (25) which extends from the lower end of the inner wall of the longitudinal gap to a point in the main body (20) located below the lower wall of the longitudinal gap.

[0034] Figure 4 shows the baseboard object of the present invention wherein the outer profile (2) is coupled to the inner profile (1) and they are assembled on a wall comprising at least one laminated plaster panel (3). As seen, the extension (13) of the inner profile (1) is completely inserted into the housing formed by the extensions (22,23) of the outer profile (2), in other words all the projections of the extension (13) are found within the housings formed by the recesses of the extensions (22,23). It can be seen in the figure how the main body (20) of the outer profile (2) extends slightly above the lower edge of the outer surface of the panel (3), preventing the appearance of any type of slot between the baseboard and the panel (3), as well as hiding the possible imperfections that may exist in said lower edge. However, the main body could also have the exact height of the gap between the panel (3) and the ground. It can also be seen in the figure how a gap (5) for the passage of cables or the like remains between the inner profile (1) and the outer profile (2).

[0035] Figure 5 shows a view like that of figure 4, and represents the assembly of the same inner (1) and outer (2) profiles with a panel (3) having a greater thickness than that represented in figure 4. As seen in this figure, only a portion of the extension (13) of the first profile is inserted into the housing formed by the extensions (22,23) of the second profile.

[0036] For a better understanding of the invention, figures 6 and 7 show a perspective view of a portion of the baseboard before the inner and outer profiles are coupled. Figure 6 shows a baseboard the outer profile of

which is flat, and figure 7 shows a baseboard the outer profile of which forms a longitudinal gap with a rectangular cross section for the installation of a lighting element, preferably an LED strip and a diffuser, as explained above.

[0037] Figures 8, 9 and 10 show an embodiment of the present invention in which the inner profile (1) comprises a pair of housing extensions (13) perpendicular to the main body, and in which the outer profile (2) comprises a pair of insertion extensions (22, 23), wherein the insertion extensions (22, 23) are introduced between the housing extensions (13), being the insertion extensions of the outer profile (2) retained by elastic retention between the housing extensions of the inner profile (1).

[0038] Figure 11 shows an outer profile (2), as the one of figure 9, but forming a longitudinal gap for a LED strip, and the upper and lower walls of said longitudinal gap comprising corresponding longitudinal notches (26) for the elastic fastening of a diffuser (27).

Claims

1. A detachable baseboard for the installation thereof in partitions or linings of walls made from one or more cladding panels, **characterised in that** it is formed by an inner profile (1) which is fastened to the structure whereon the cladding panels are fastened, and an outer profile (2), the inner and outer profiles comprising cooperating elements for coupling by means of elastic retention.

2. The detachable baseboard according to claim 1 **characterised in that** the inner profile (1) is formed by a flat main body (10) comprising on the outer face thereof one or more extensions (13) perpendicular to said main body, and **in that** the outer profile (2) is formed by a main body (20) comprising a set of extensions (22, 23) perpendicular to said main body, wherein the extensions of one of the profiles are introduced between the extensions of the other profile, and are retained by means of an elastic retention.

3. The detachable baseboard according to claim 2 **characterised in that** the inner profile (1) is formed by a flat main body (10) comprising on the outer face thereof an extension (13) comprising at least one projection, and **in that** the outer profile (2) is formed by a main body (20) comprising at least one housing matching said projection, the projection being able to be elastically retained in the housing.

4. The detachable baseboard, according to claim 3, **characterised in that** the extension (13) comprises a set of projections both on the outer face thereof and on the inner face thereof, and the housing is formed by a pair of parallel extensions (22,23) which extend from the inner face of the main body (20) of the outer profile (2) and are perpendicular to said main body (20), said extensions (22,23) comprising a set of recesses corresponding with the projections of the extension of the other profile.

5. The detachable baseboard according to any of claims 3 to 4, **characterised in that** the inner profile comprises an upper flange (12) which extends perpendicularly from the upper portion of the outer face of the main body (10), at a point located between the extension (13) and the upper end of the main body (10).

6. The detachable baseboard according to claim 2, **characterised in that** the inner profile (1) comprises on its outer face a pair of extensions (13) perpendicular to the main body, and **in that** the outer profile (2) comprises a pair of extensions (22, 23) perpendicular to the main body, wherein the extensions (22 ,23) of the outer profile (2) are introduced between the extensions (13) of the inner profile (1), being the extensions (22, 23) of the outer profile (2) retained by elastic retention between the extensions (13) of the inner profile (1).

7. The detachable baseboard according to any of claims 2 to 6, **characterised in that** the inner profile comprises a lower flange (11) which extends perpendicularly from the lower end of the outer face of the main body (10).

8. The detachable baseboard according to any of claims 2 to 7, **characterised in that** the main body (10) of the inner profile (1) comprises a longitudinal recess (14) arranged on the outer face of the main body (10), between the upper flange (12) and the upper end of the main body (10).

9. The detachable baseboard according to any of claims 2 to 8, **characterised in that** the main body (20) of the second profile (2) is a flat body.

10. The detachable baseboard according to any of claims 2 to 8, **characterised in that** the main body (20) of the second profile (2) forms a longitudinal gap with a rectangular cross section.

11. The detachable baseboard according to claim 10 **characterised in that** the upper and lower walls of the longitudinal gap comprise corresponding notches (26) for elastic fastening of a diffuser (27) comprising tabs corresponding with said notches, the diffuser (27) being coupled to the profile (2) by means of an elastic retention of said tabs in the notches (26).

12. The detachable baseboard according to any of claims 10 or 11, **characterised in that** the outer profile (2) further comprises a reinforcing portion (25)

which extends from the lower end of the inner wall of the longitudinal gap to a point in the main body (20) located below the lower wall of the longitudinal gap.

13. The detachable baseboard according to any of claims 2 to 12, **characterised in that** the outer profile (2) comprises a lower flange (21) which extends perpendicularly from the lower end of the inner face of the main body (20).

14. The detachable baseboard according to any of claims 2 to 13, **characterised in that** the height of the main body (20) of the outer profile (2) is greater than the height of the gap existing between the cladding panel (3) and the ground.

15. The detachable baseboard according to any of claims 2 to 14, **characterised in that** the height of the main body (20) of the outer profile (2) is substantially identical to the height of the gap existing between the cladding panel (3) and the ground.

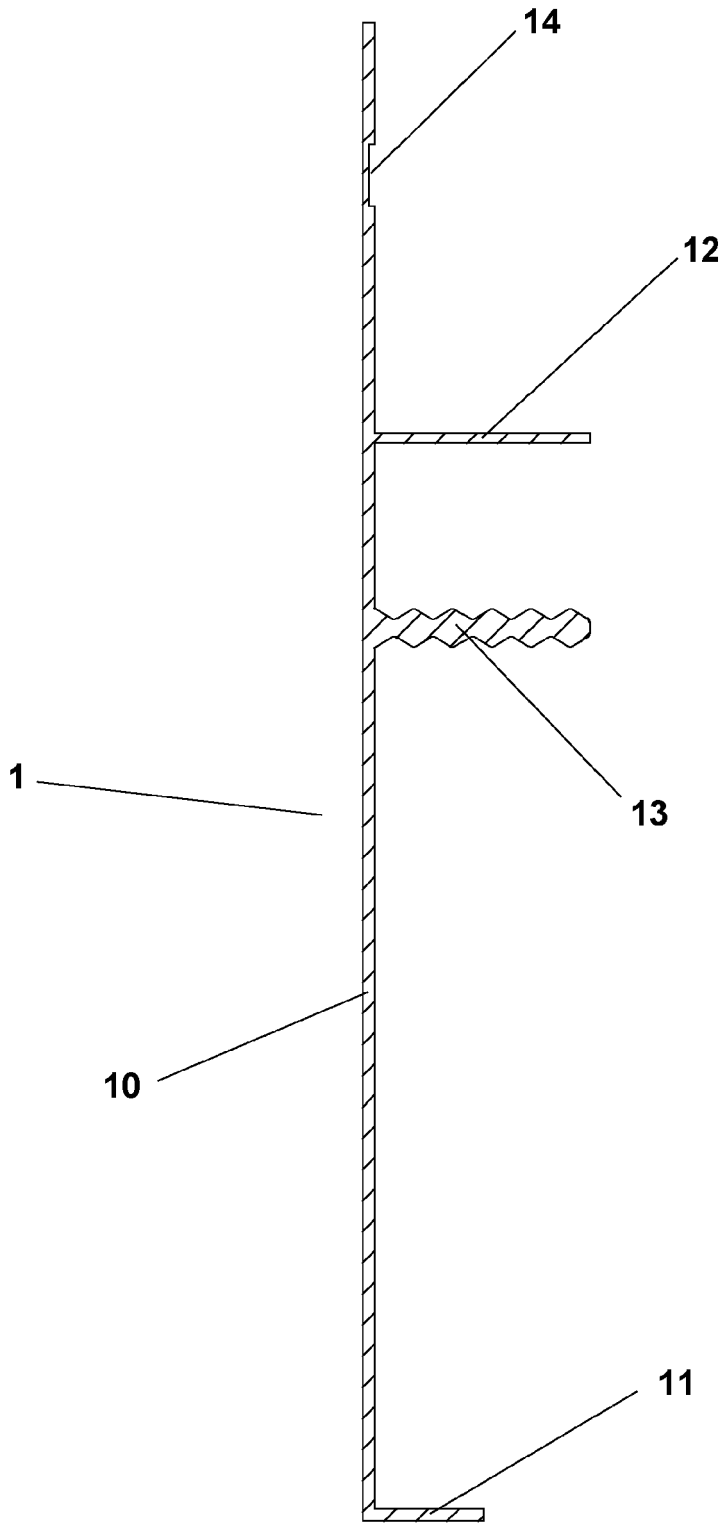

Fig. 1

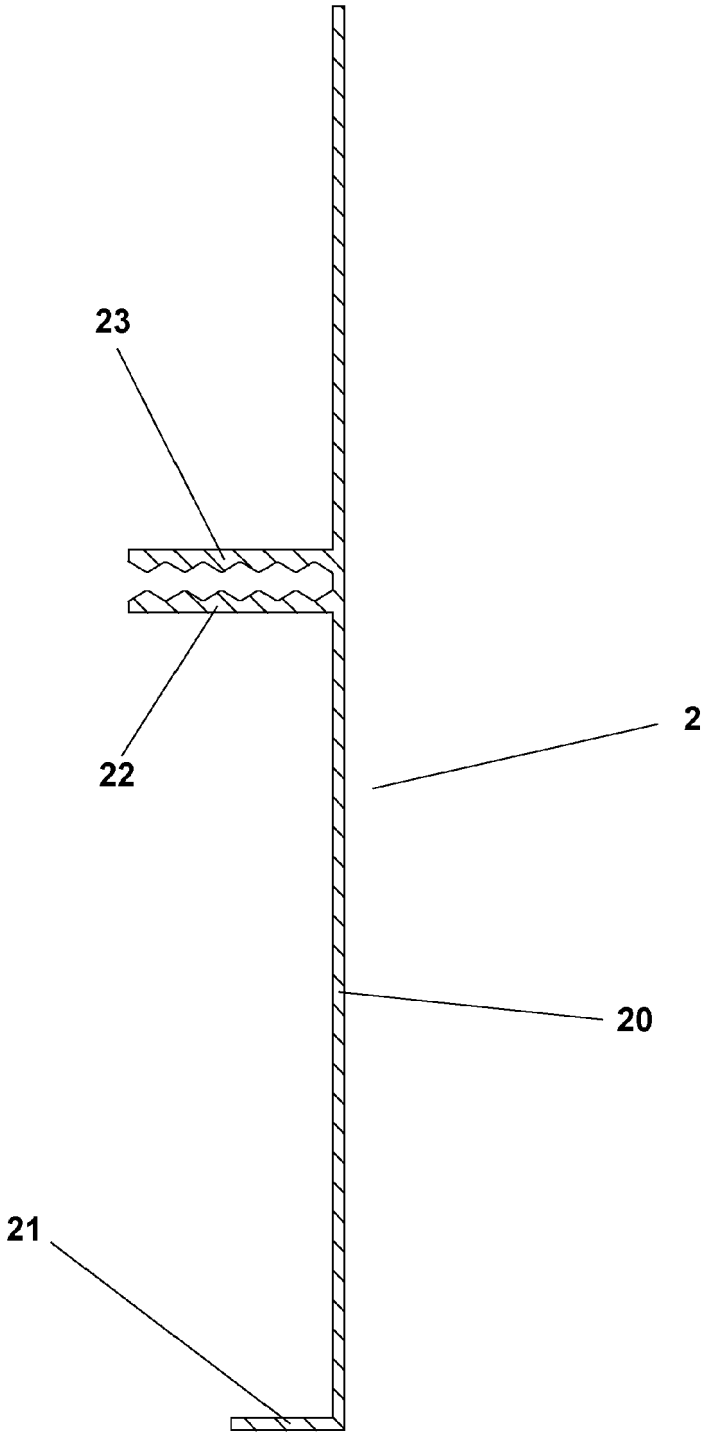

Fig. 2

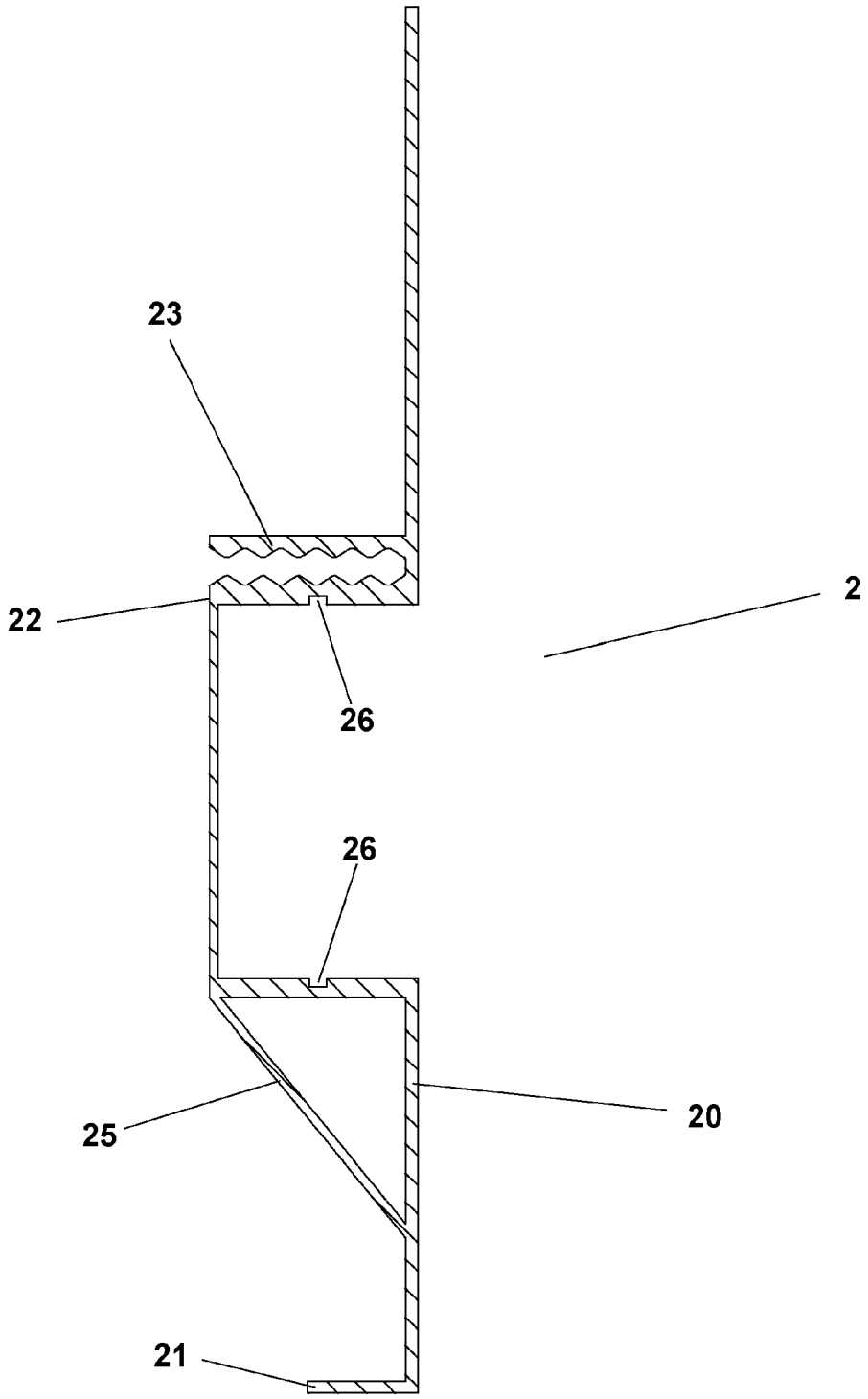

Fig. 3

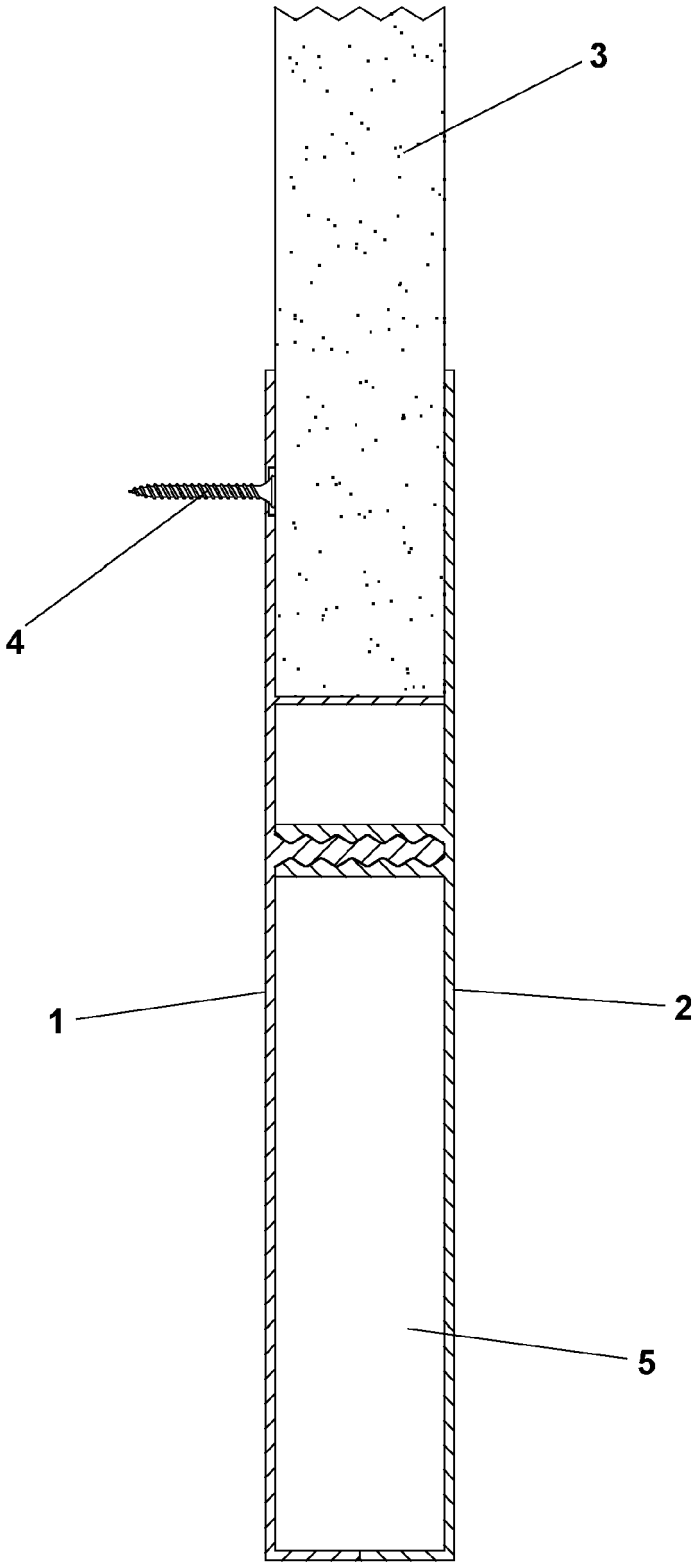

Fig. 4

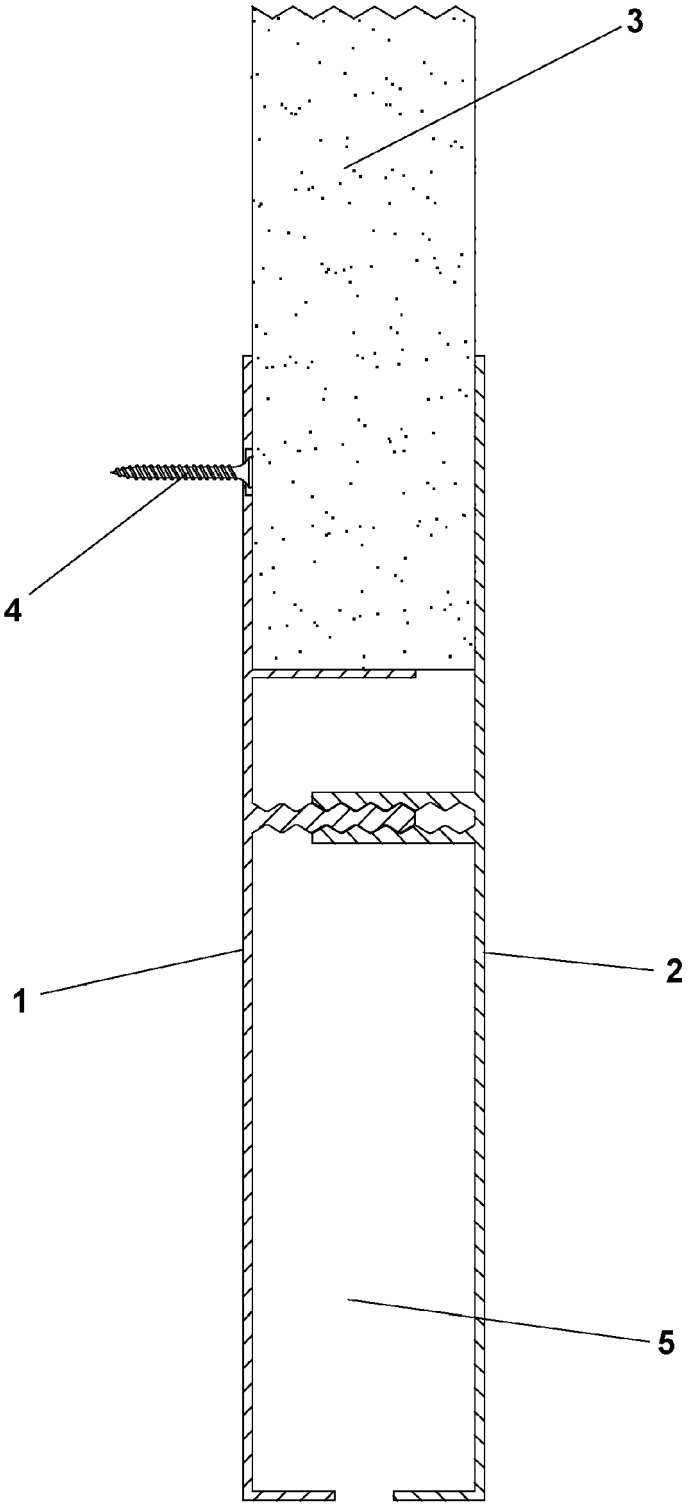

Fig. 5

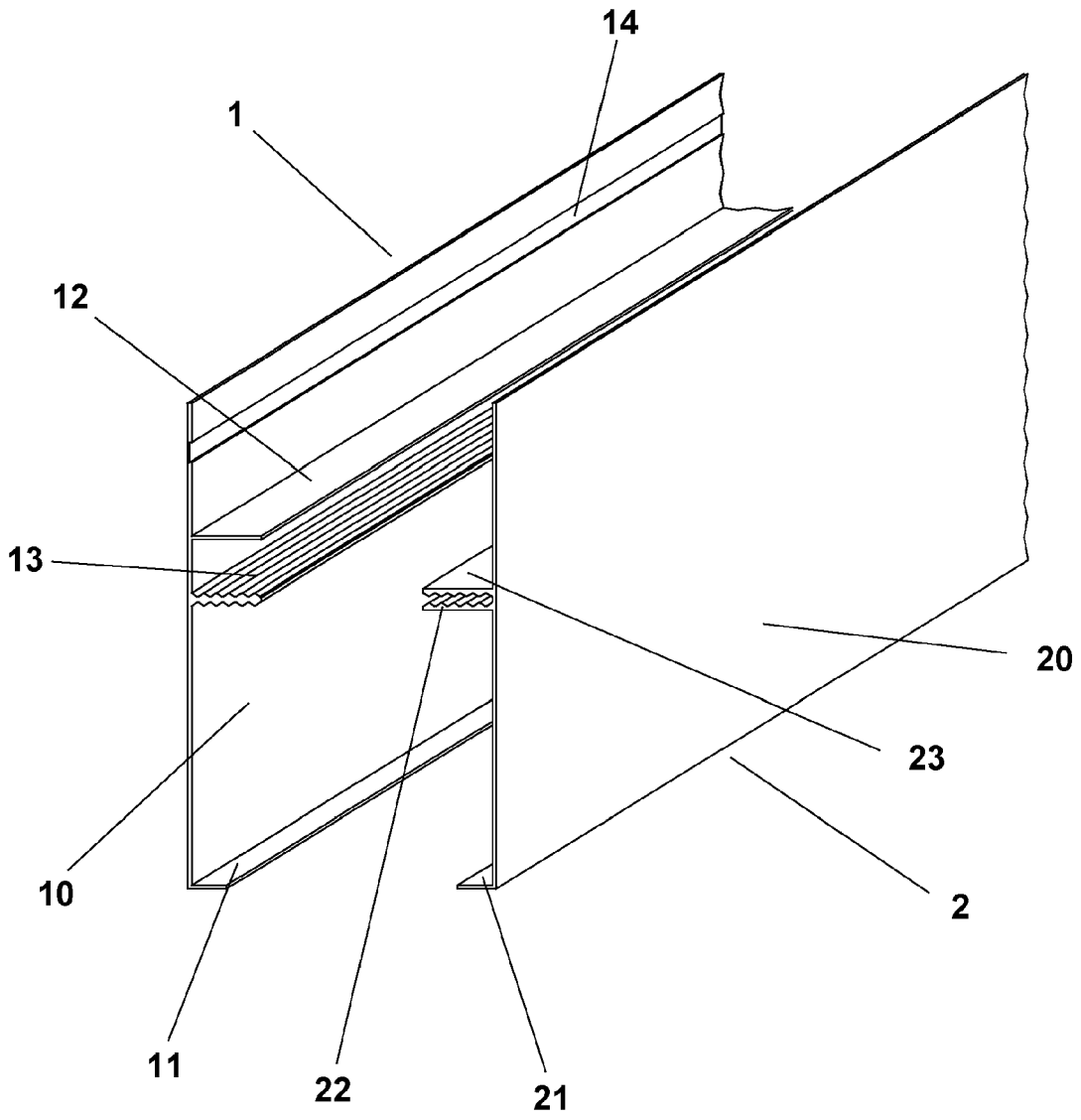

Fig. 6

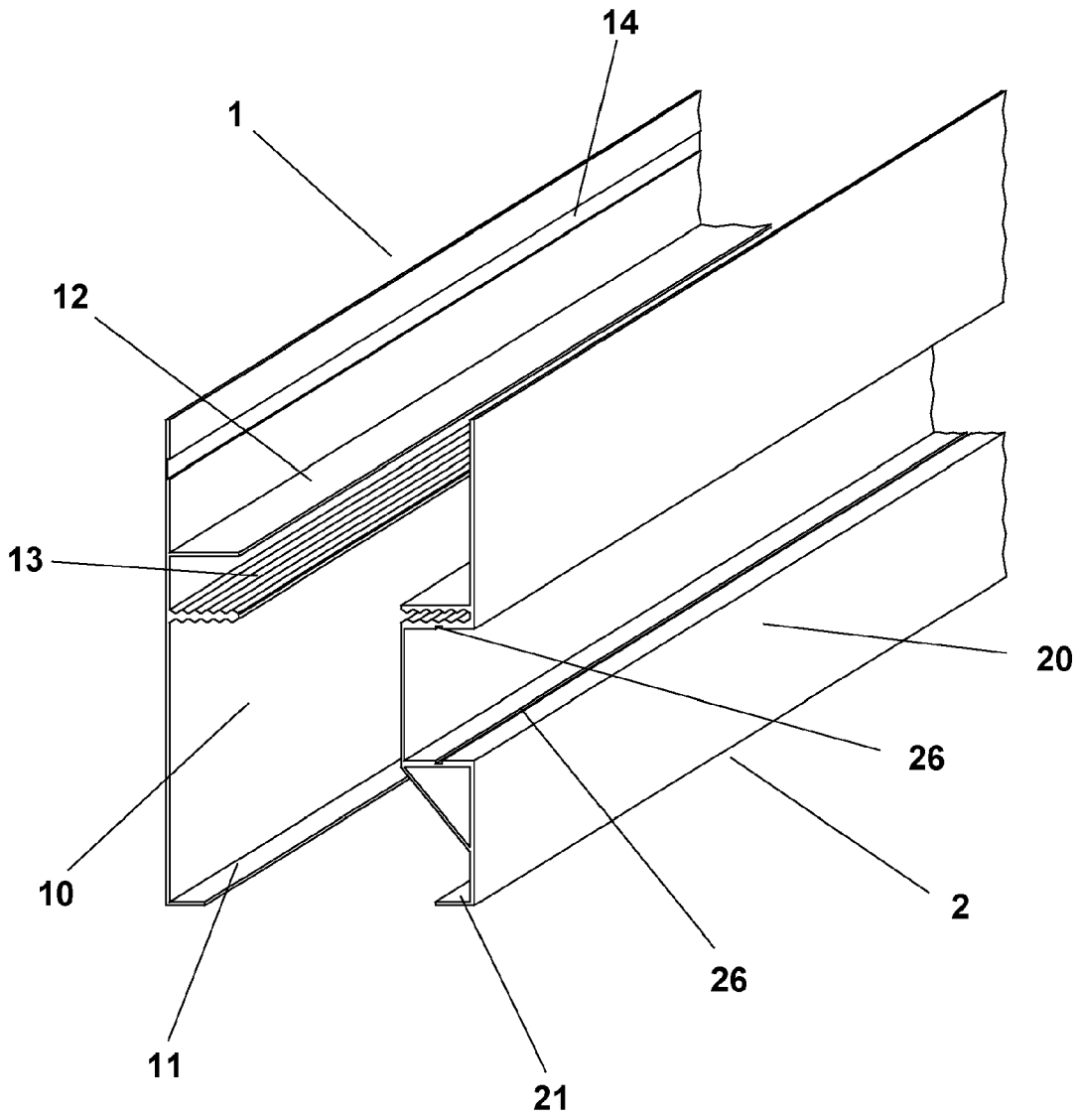

Fig. 7

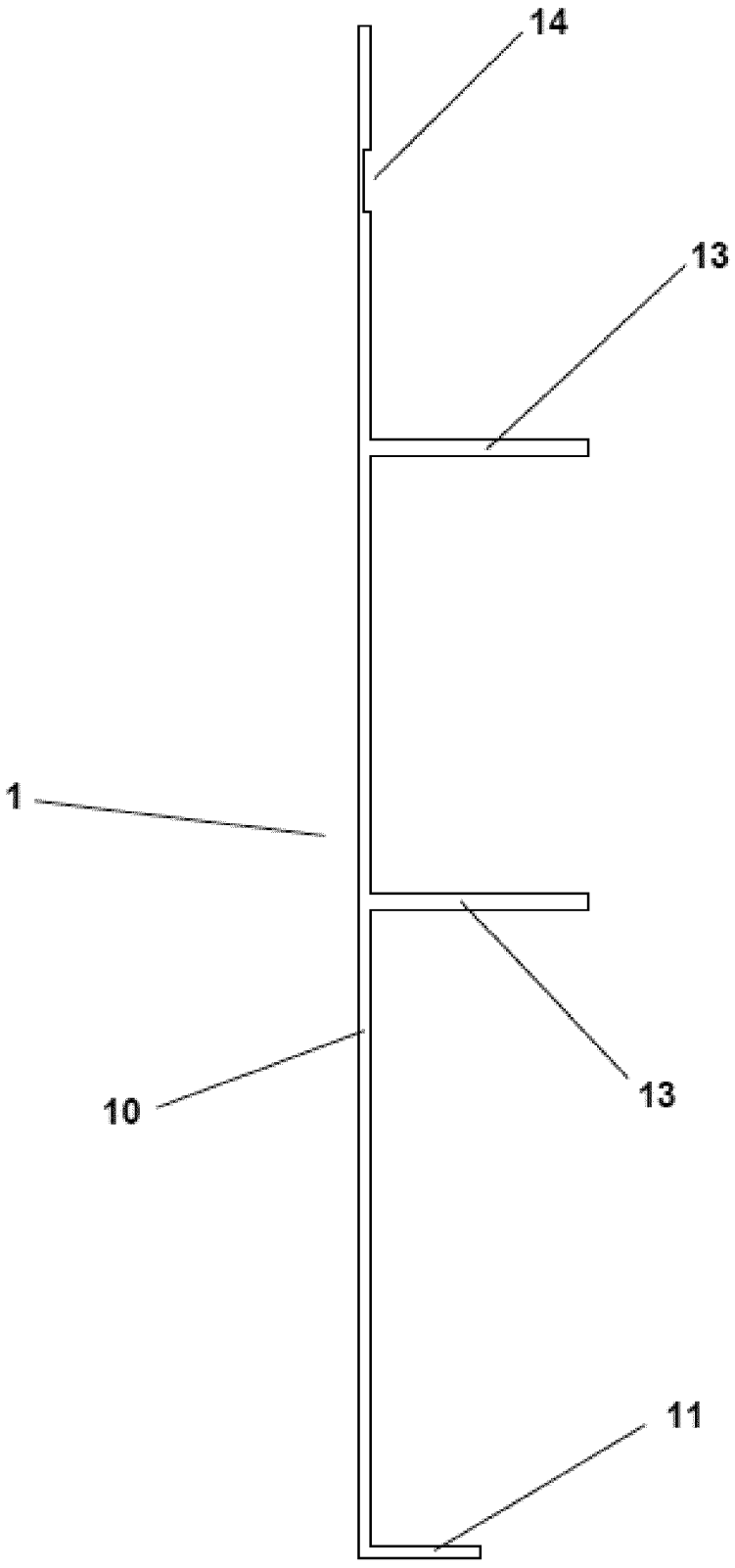

Fig. 8

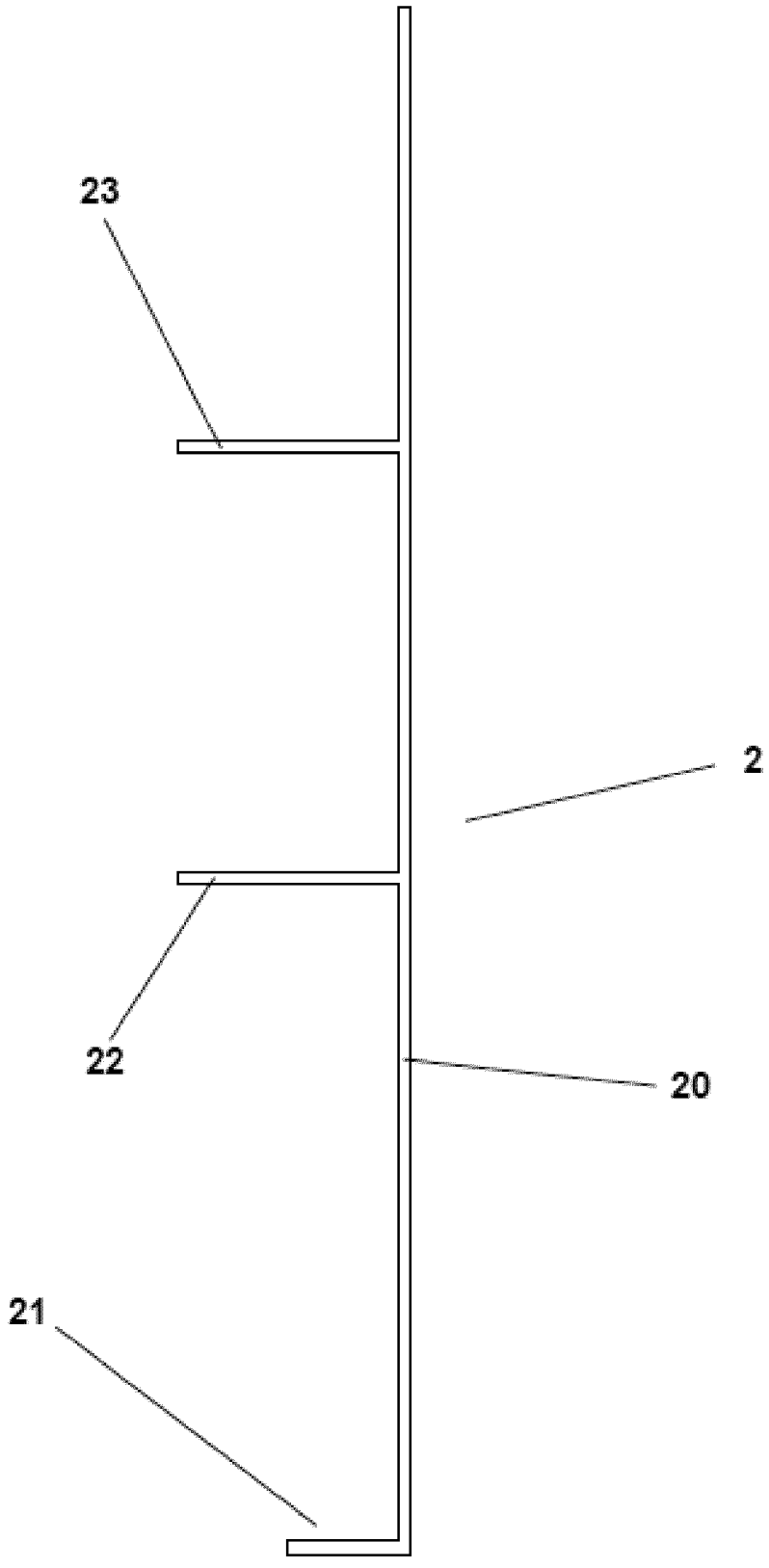

Fig. 9

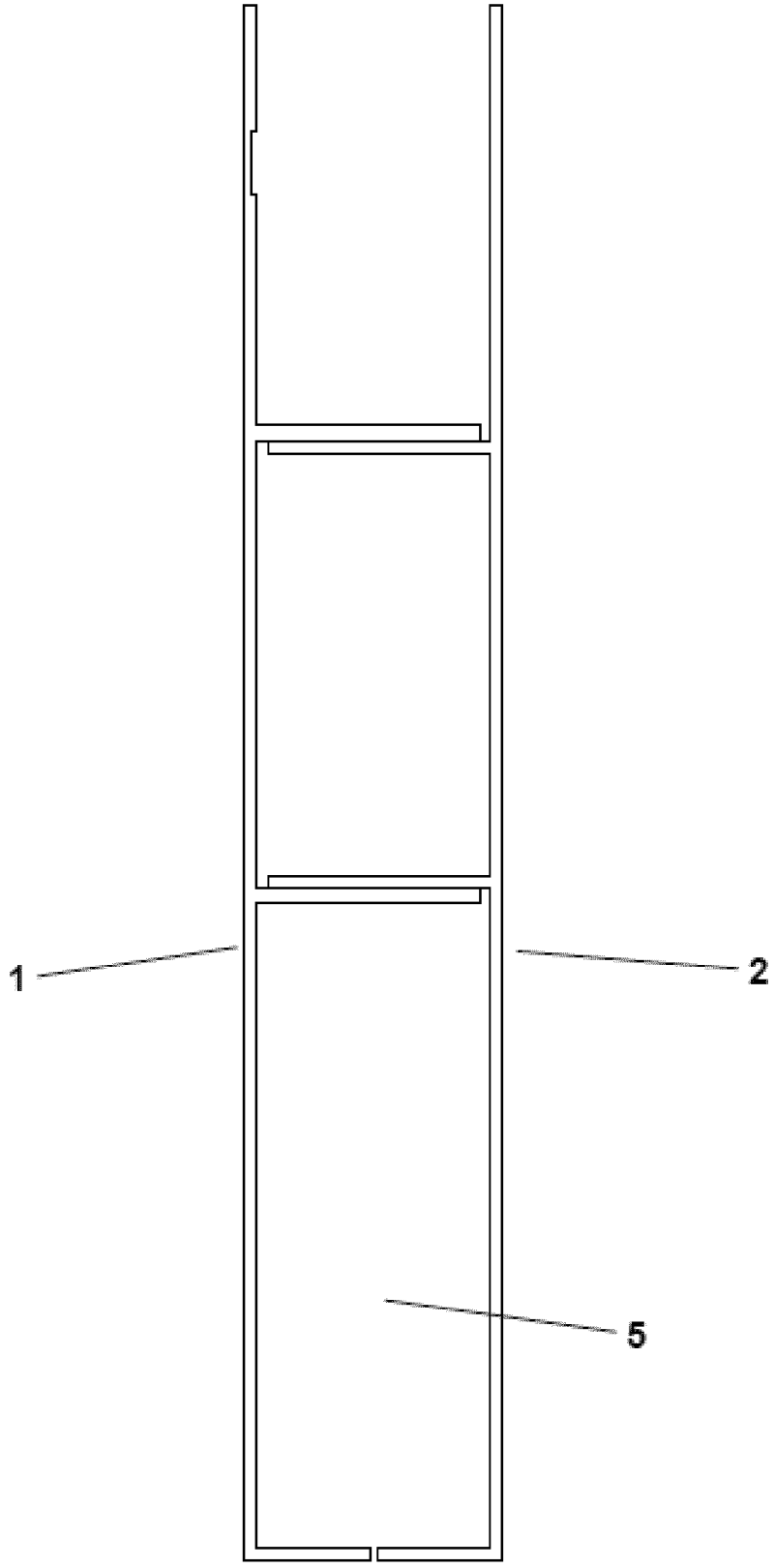

Fig. 10

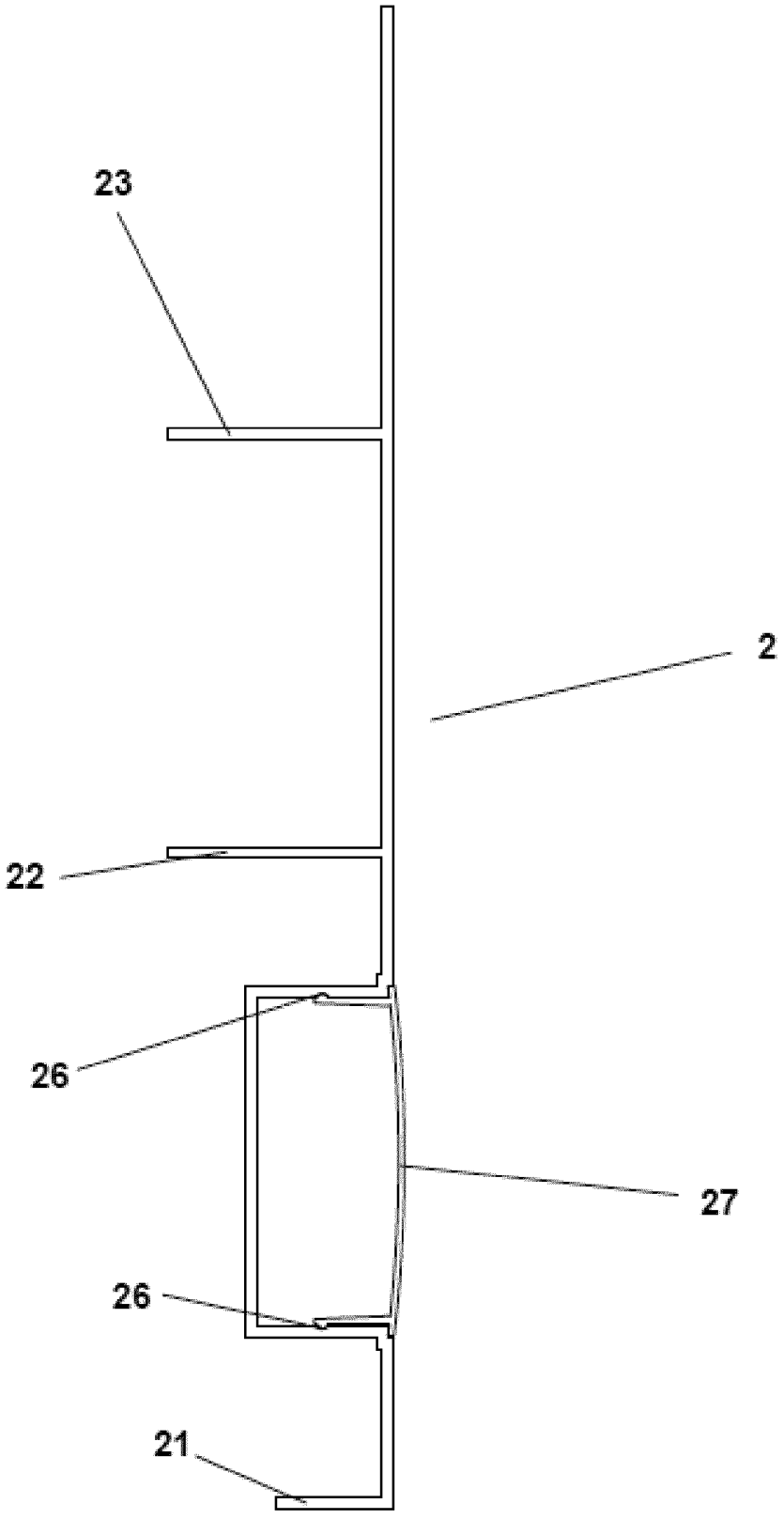

Fig. 11

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EUROPEAN SEARCH REPORT

Application Number
EP 20 17 8533

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	EP 0 990 747 A1 (NEUHOFER FRANZ JUN [AT]) 5 April 2000 (2000-04-05) * figure 1 *	1-4,7,9	INV. E04F19/04 E04F19/06
X	CN 108 756 148 A (DONGYANG TIANYANG CONSTRUCTION ENG DESIGN CO LTD) 6 November 2018 (2018-11-06) * figure 1 *	1,2,6,8, 10	
X	DE 21 10 312 A1 (ZECH, KLAUS [DE]) 14 September 1972 (1972-09-14) * figure 1 *	1,2,6-9, 14	
X Y	JP 2013 044142 A (PANASONIC CORP) 4 March 2013 (2013-03-04) * figure 2 *	1,2,10, 13,14 11	
X Y	DE 20 2019 100613 U1 (CARL PRINZ GMBH & CO KG [DE]) 29 April 2019 (2019-04-29) * figure 5 *	1 11	

TECHNICAL FIELDS SEARCHED (IPC)

E04F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	28 October 2020	Topcuoglu, Sadik Cem

CATEGORY OF CITED DOCUMENTS

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28-10-2020

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0990747 A1	05-04-2000	AT 260392 T	15-03-2004
		EP 0990747 A1	05-04-2000
CN 108756148 A	06-11-2018	NONE	
DE 2110312 A1	14-09-1972	NONE	
JP 2013044142 A	04-03-2013	NONE	
DE 202019100613 U1	29-04-2019	NONE	

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