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(54) **LAMP**

(57) A lamp (1) comprises a light source (10) in the form of an LED strip having a strip length and a strip width, the LEDs being distributed in the direction of the strip length. A lamp body (20) in the shape of a circular segment with a flat base and a convex frame that supports the light source (10), giving it a corresponding arched shape. The lamp (1) comprises a diffusing body (12) placed in contact with the light source (10) and made of a translucent or transparent material so as to diffuse the light emitted by the light source (10). The diffusing body (12) has a substantially parallelepiped shape with a rectangular base, in a proximal wall (14) of the diffusing body (12) facing the light source (10) there being made a recess (16) that houses, with shape-coupling, the lamp body (20) with the light source (10).

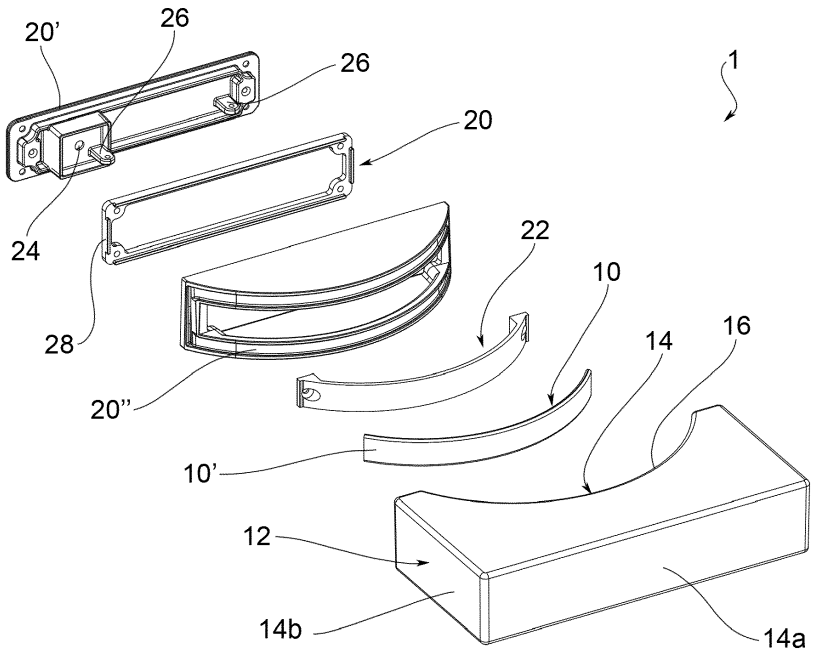

FIG.1

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Description

[0001] The present invention concerns a lamp, in particular a lamp in the form of a brick for obtaining a light point in a wall with an exterior brick cladding.

[0002] Recessed lamps are already known and are suitable for installation in a wall. Usually, such lamps require the construction of a special housing in the wall, mounting the lamp and a subsequent finishing of the wall around the lamp. These operations are particularly difficult, if not impossible, in the case of brick partitions or walls with an exterior brick cladding.

[0003] In the context of the present invention, a brick is defined as a building material consisting of a block in the form of a parallelepiped, with predefined dimensions and in accordance with specific standards that certify its quality and suitability to build load-bearing walls. For the construction of a wall, the bricks are attached to each other by means of a cement material.

[0004] The object of the present invention is to propose a lamp that may create a light point in a brick wall or partition.

[0005] Another object of the invention is to propose a lamp suitable to be used both as a recessed lamp in a brick wall or partition and as a table lamp on a surface.

[0006] Said object is achieved with a lamp according to claim 1, with a brick wall, partition or exterior brick cladding according to claim 8, and with a method for creating a brick wall, partition or exterior brick cladding with at least one light point according to claim 11. The dependent claims describe preferred embodiments of the invention.

[0007] The features and advantages of the lamp according to the invention will, however, become evident from the description provided hereinafter of the preferred embodiments thereof, provided by way of indicative and non-limiting examples, with reference to the accompanying figures, wherein:

- figure 1 is an exploded perspective view of a lamp according to the invention, in an embodiment;
- figure 2 shows the assembled lamp;
- figures 3 and 3a are a perspective view and a plan view from the bottom of the lamp in a variant embodiment;
- figure 4 is a view in elevation of a lamp in a further embodiment;
- figure 5 is a schematic view, in cross-section, of a wall with an exterior brick cladding, fitted with a lamp according to the invention;
- figure 6 shows a corner portion of a brick wall incorporating the lamp in figures 1 and 2; and
- figure 7 shows a portion of a brick wall incorporating the lamp in figure 4.

[0008] In the following description, the elements common to the various embodiments of the lamp according to the invention will be indicated at the same numeric references.

[0009] In said drawings, a lamp according to the invention has been indicated collectively at 1; 100.

[0010] In a general embodiment, the lamp 1; 100 comprises a light source 10; 110 in the form of a strip of LEDs 10' having a strip length and a strip width. The strip length may be significantly longer than the strip width, for example, by a multiple thereof.

[0011] The LEDs are distributed, for example evenly, in the direction of the strip length.

[0012] The lamp 1; 100 comprises a diffusing body 12; 112, substantially parallelepiped in shape, with a rectangular base.

[0013] The light source 10; 110 is placed in contact with a proximal wall 14; 114 of the diffusing body 12; 112.

[0014] The diffusing body 12; 112 is made of a translucent or transparent material so as to diffuse the light emitted by the light source 10; 110.

[0015] In one embodiment, the dimensions of the diffusing body 12; 112 along the three orthogonal axes of the space x, y, z are equal to the dimensions of a traditional brick for constructing a brick wall.

[0016] For example, the dimensions of the diffusing body 12; 112 are those of a unified Italian brick, that is 25 cm long, 12 cm wide and 5.5 cm thick, or those of a unified English brick, that is 21.5 cm long, 10.25 cm wide and 8.5 cm thick.

[0017] According to one aspect of the invention, the diffusing body 12, 112 has a structural resistance comparable to that of a traditional brick in order to perform the same load-bearing function as a traditional brick.

[0018] In other words, the diffusing body 12; 112 meets the same standards to which traditional bricks are subject.

[0019] For example, the diffusing body 12; 112 is made of solid glass.

[0020] Note that the diffusing body 12; 112 consists of a monolithic element, preferably made of a single material, so as to simulate as much as possible the appearance of a traditional brick.

[0021] Therefore, in accordance with one aspect of the invention, and as illustrated in figures 6 and 7, the lamp 1; 100 may be used in place of a traditional brick to make a partition, brick wall or exterior brick cladding. For example, the lamp 1; 100 is connected by cement material to other traditional bricks 2.

[0022] In an embodiment illustrated in figures 1, 2 and 3, the lamp 1 comprises a lamp body 20 in the shape of a circular segment with a flat base 20' and a convex frame 20'' that supports the light source 10, giving it a corresponding arched shape.

[0023] In the proximal wall 14 of the diffusing body 12, i.e. the wall facing the light source 10, a recess 16 is obtained, which houses, with shape-coupling, the lamp body 20 with the light source 10.

[0024] This embodiment is particularly suitable for using the lamp 1 as an angular brick in a partition, wall or exterior cladding, as illustrated in figure 6.

[0025] In effect, the curved shape of the LED strip 10' extending towards the inside of the parallelepiped defining the outer dimensions of the diffusing body 12 allows both the distal wall 14a of the diffusing body 12, i.e. the wall opposite the proximal wall 14, and the lateral walls 14b extending between the proximal wall 14 and the distal wall 14b parallel to the strip width to be illuminated in a substantially uniform way.

[0026] In particular, the LEDs positioned toward the ends of the LED strip 10' are turned at least in part toward the side walls 14b and in any case generate a luminous flux that has a significant component directed toward such walls.

[0027] To emphasize as much as possible the effect of uniformity of illumination of the diffusing body 12; 120, in one embodiment, the ends of the LED strip 10' are near the respective ends of the proximal wall 14.

[0028] In other words, the strip length of the LED strip 10' is slightly less than the length of the proximal wall 14.

[0029] In one embodiment, the light source 10; 110 is in the form of a flexible LED strip 10' which is then fixed, for example by glue, on a metallic substrate 22, for example made of aluminum, which gives the LED strip 10' the arched shape and which also acts as a means of heat dissipation. In one embodiment, the metallic substrate 22 is anchored to the base 20' of the lamp body 20, for example, by means of fastening tabs 26.

[0030] In one embodiment, in the base 20' of the lamp body 20 a hole 24 is made for the passage of power cables of the light source 12; 120.

[0031] In one embodiment, the base 20' is connected in a removable way to the lamp body 20 and with a sealing element 28 interposed.

[0032] Due to the flatness of the base 20' of the lamp body 20, the lamp 1 may also be used as a table lamp, i.e. supported by the base 20' on a support surface.

[0033] For this purpose, in a variant embodiment shown in figures 3 and 3a, the light source 10 may be powered by a power supply battery - not shown - housed in the lamp body 20. In figure 3, a dimming button 30 for the table lamp may be seen. Figure 3a shows, in the base 20', an on/off switch 32 for the lamp 1 and a connector 33, for example a USB connector, to connect a cable for charging the lamp's power supply battery.

[0034] In a variant embodiment shown in figure 4, the proximal wall 114 is a flat wall and the lamp body 120, with the light source 110, is resting against such flat proximal wall 114.

[0035] In this embodiment, the side walls 114b are lit less than the distal wall 114a. This lamp 100 may thus be used as a luminous brick in a flat portion of a partition or brick wall (Figure 7), where the side walls 114b are not visible.

[0036] In one embodiment, the thickness of the diffusing body 12, 120 is defined by the width of the proximal wall 14; 114, which is substantially equal to the thickness of the lamp body 20; 120 in the direction parallel to the strip width.

[0037] In one embodiment, the side walls 14b; 114b have a shorter length than the length of the distal wall 14a, 114a.

[0038] The object of the present invention is also a wall, partition or exterior cladding 200 made of bricks 2, wherein at least one brick is made with a lamp 1; 100 as described above in the various embodiments.

[0039] For example, the bricks 2 are attached to each other and to the lamp 1; 100 using cement material.

[0040] In one embodiment, the wall 200 comprising an inner wall 202 wherein a tube 204 containing the electric power supply cables of the lamp is passed, said tube ending at the base 20' of the lamp body.

[0041] It is also object of the invention a method for constructing a brick wall, partition or exterior brick cladding equipped with at least one light point, which provides for using, in place of at least one traditional brick and having the same load-bearing function as said traditional brick, a lamp 1, 100 as described above.

[0042] To the embodiments of the lamp according to the invention, a person skilled in the art may, to satisfy contingent needs, make modifications, adaptations and replacements of elements with others that are functionally equivalent, without departing from the scope of the following claims. Each of the features described as belonging to a possible embodiment may be implemented independently from the other described embodiments.

Claims

1. Lamp, comprising:

- a light source in the form of an LED strip having a strip length and a strip width, the LEDs being distributed in the direction of the strip length;
- a lamp body in the shape of a circular segment with a flat base and a convex frame that supports the light source, giving it a corresponding arched shape; and
- a diffusing body placed in contact with the light source and made of a translucent or transparent material so as to diffuse the light emitted by the light source, wherein the diffusing body has a substantially parallelepiped shape with a rectangular base, in a proximal wall of the diffusing body facing the light source there being made a recess that houses, with shape-coupling, the lamp body with the light source.

2. Lamp according to claim 1, wherein the ends of the LED strip are in proximity to the respective ends of the proximal wall.

3. Lamp according to claim 1 or 2, wherein the thickness of the diffusing body is defined by the width of the proximal wall, which is substantially equal to the thickness of the lamp body in the direction parallel

to the strip width.

4. Lamp according to any one of the preceding claims, wherein the diffusing body defines a distal wall opposite the proximal wall and two side walls extending from the opposite ends of the proximal wall and shorter in length than the length of the distal wall.

5. Lamp according to any one of the preceding claims, wherein the diffusing body is made of solid glass.

6. Lamp according to any one of the preceding claims, wherein the dimensions of the diffusing body along the three orthogonal axes of the space are equal to the dimensions of a traditional brick for constructing a brick wall.

7. Lamp according to the preceding claim, wherein the diffusing body has a structural strength comparable to that of a traditional brick so as to perform the same load-bearing function as a traditional brick.

8. Wall, partition or exterior brick cladding, wherein at least one brick is made with a lamp according to any one of the preceding claims.

9. Wall according to the preceding claim, wherein the bricks are connected to each other and to the lamp by means of a cement material.

10. Wall according to claim 8 or 9, comprising an inner wall wherein a tube containing the electric power supply cables of the lamp is passed, said tube ending at the base of the lamp body.

11. Method for constructing a brick wall, partition or exterior brick cladding with at least one light point, **characterized in that**, in place of at least one traditional brick, a lamp according to any one of the claims 1-7 is used, with the same load-bearing function as said traditional brick.

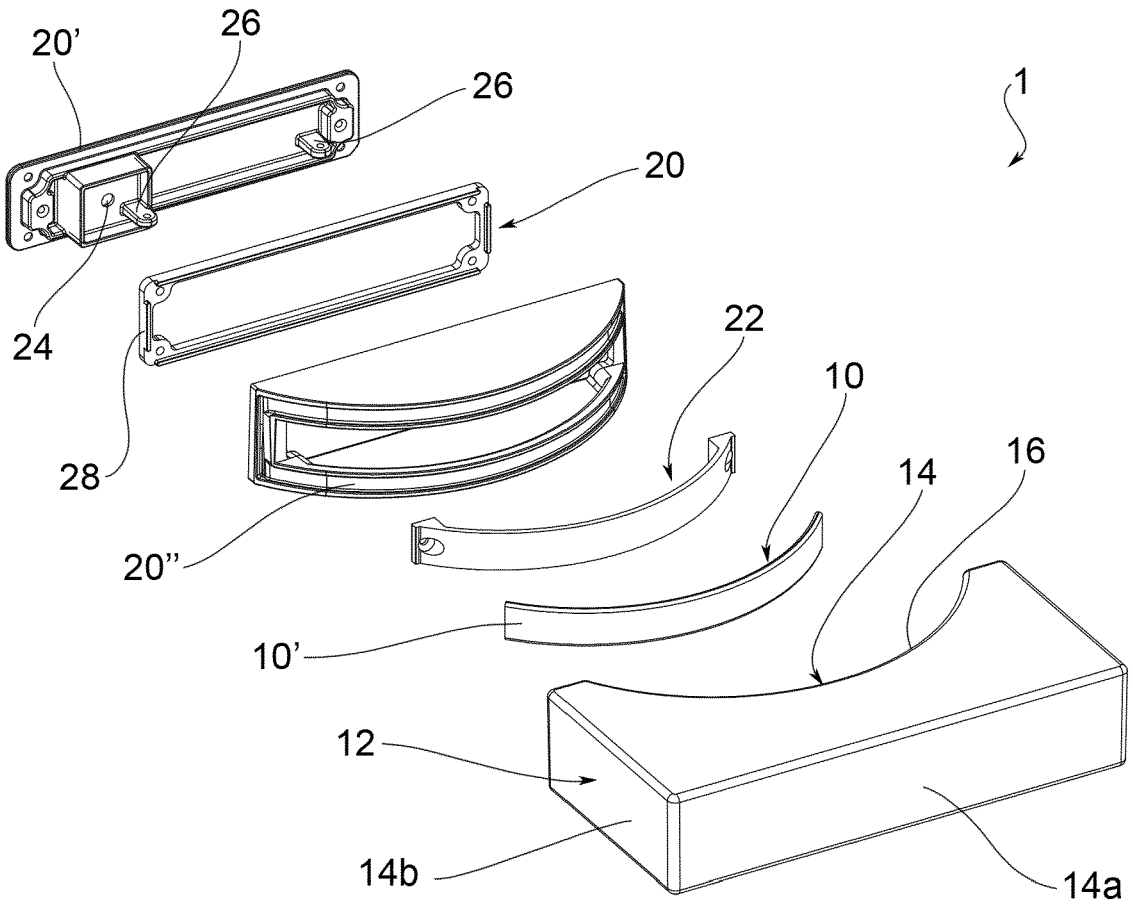

FIG.1

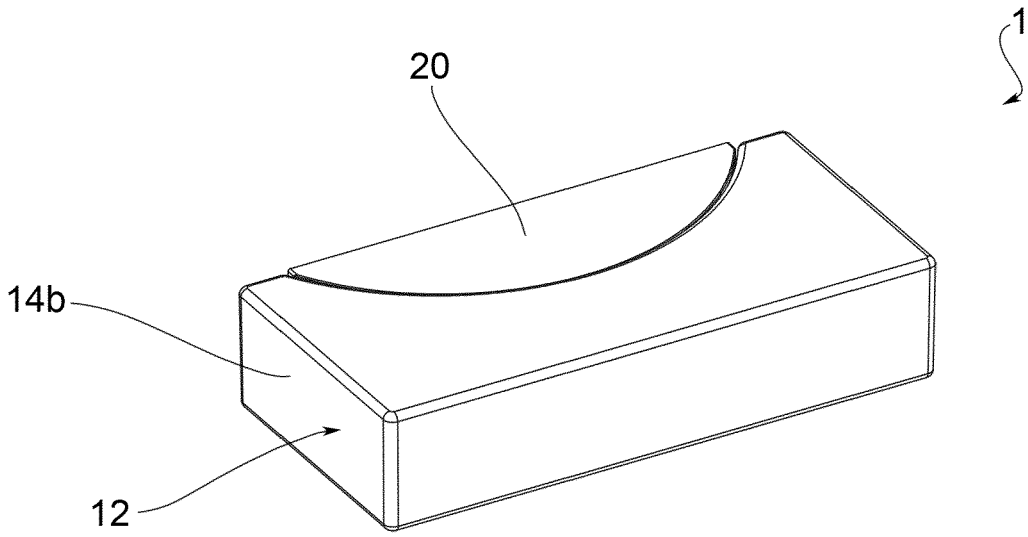

FIG.2

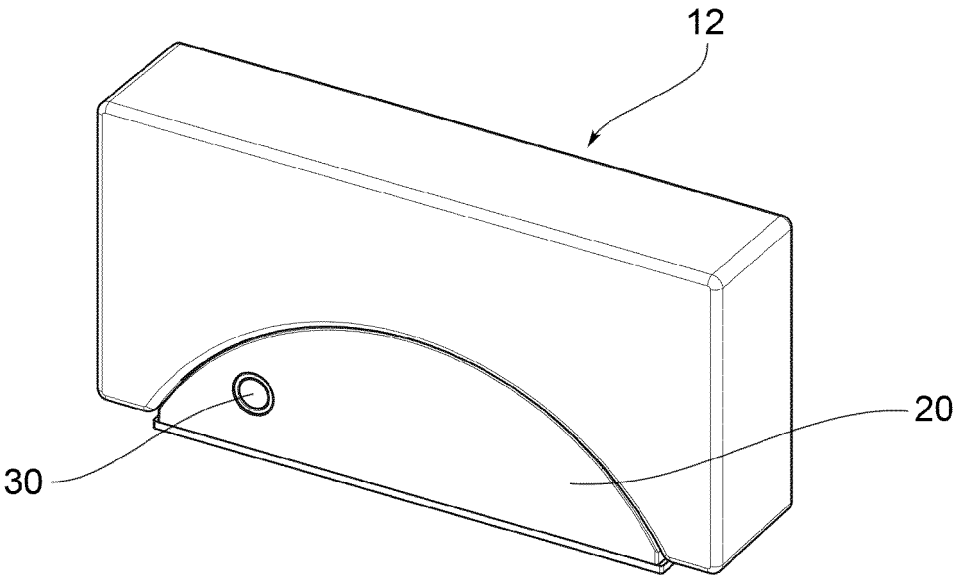

FIG.3

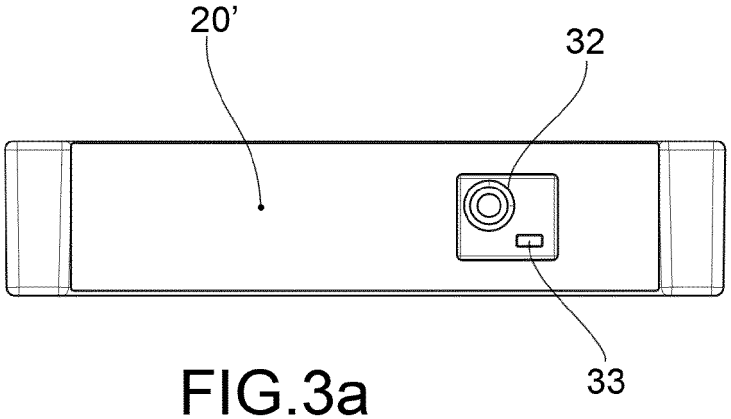

FIG.3a

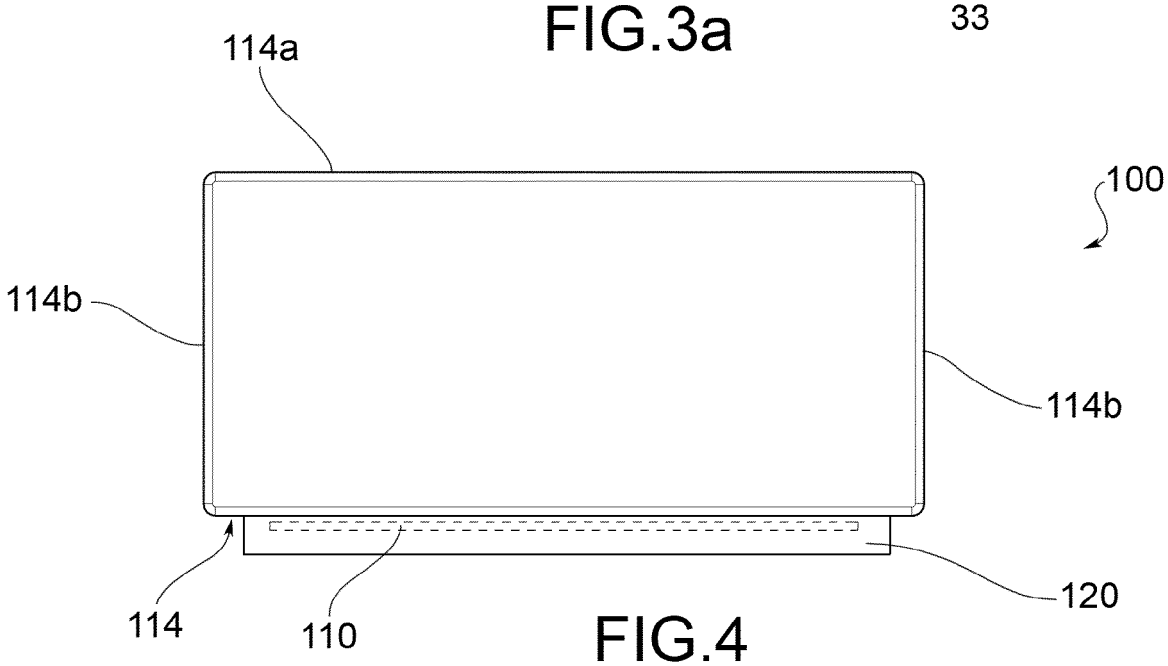

FIG.4

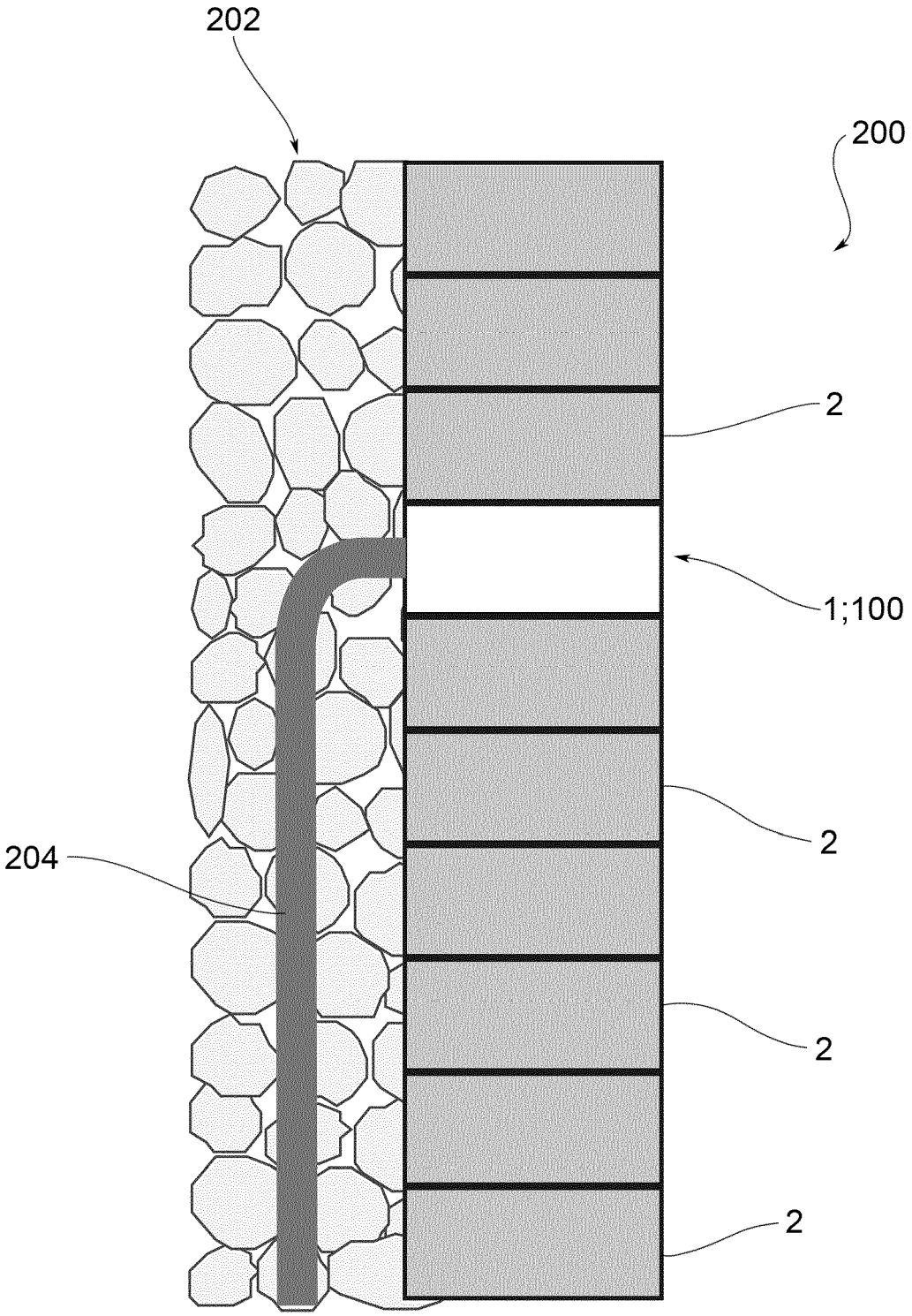

FIG.5

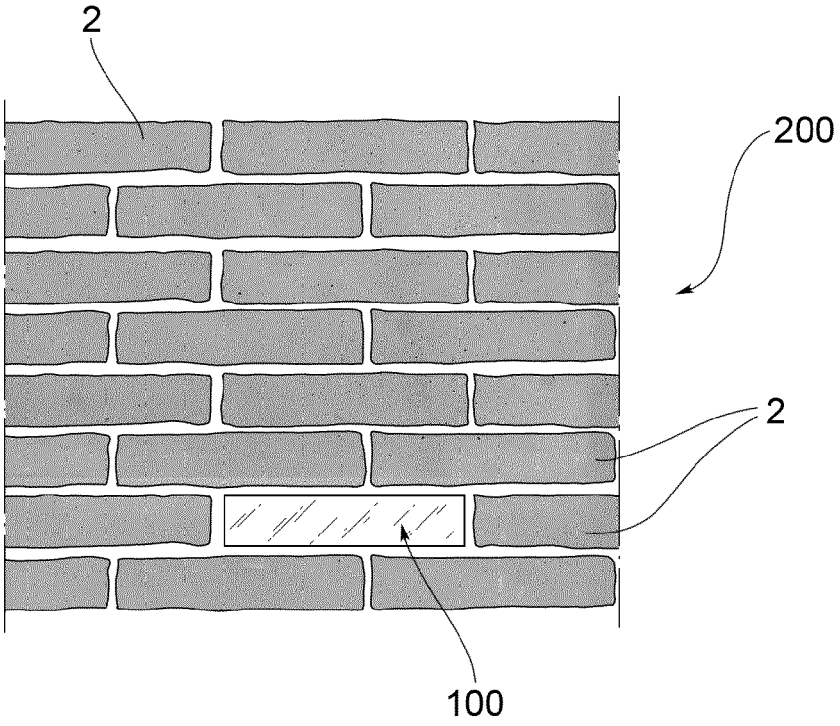

FIG.7

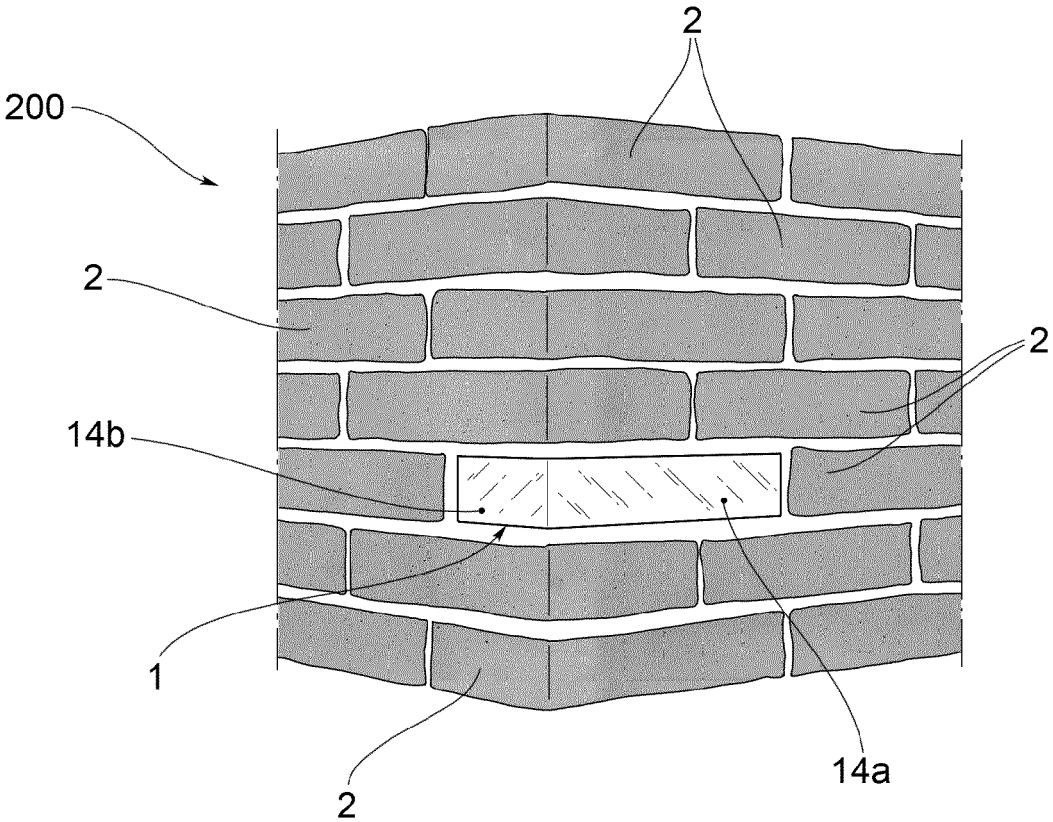

FIG.6

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EUROPEAN SEARCH REPORT

Application Number
EP 19 15 8940

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	16 May 2019	Vida, Gyorgy

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EUROPEAN SEARCH REPORT

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EP 19 15 8940

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