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(54) **System for the fastening of the traslucent parts of ceiling lamps to the relevant support**

(57) The invention is a new system for the fastening of the translucent parts (1) of ceiling lamps to the relevant plates (2), characterized in that the fastening elements cannot be seen, the fastening operations are quite easy, the translucent part (1) can be fixed to the plate (2) with no need to use common or specific tools.

The edges of said plate (2) are provided with pins (2.1), while the translucent part (1) is provided with seats or grooves (1.1) whose number and position correspond exactly to those of the pins (2.1) present on the plate (2).

To fix the translucent part (1) to the plate (2) it is sufficient to bring it near the plate and to rotate it so that the pins (2.1) slide in the section parallel to the edge of the translucent part (1) until reaching and fitting in the second section of the U-shaped groove (1.1) that does not end on the edge of the translucent part. The fastening system described above, complete with the elastic element, ensures the quick and safe fastening and removal of the translucent part to/from the plate.

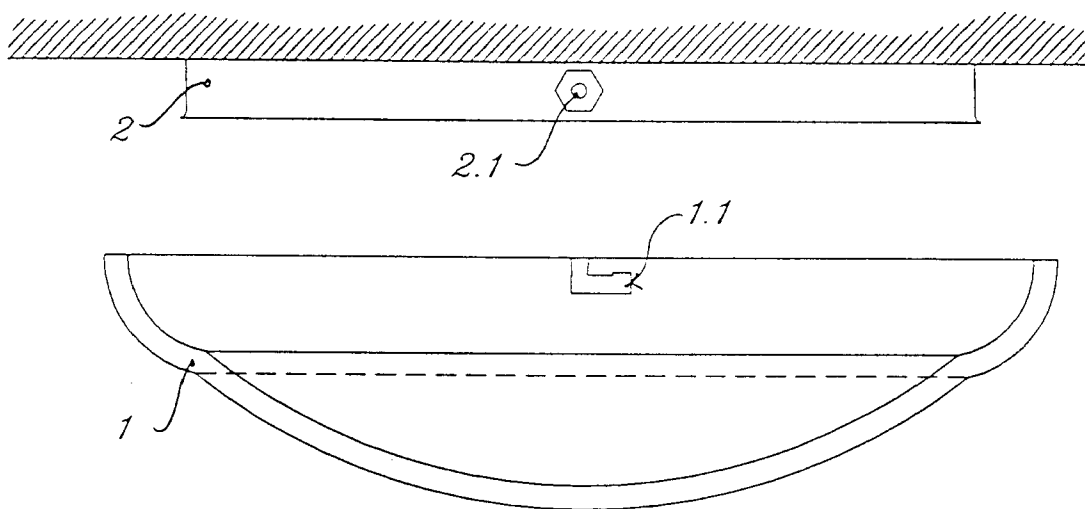


Fig. 1

EP 0 911 580 A2

Description

[0001] The present invention concerns the lighting sector and in particular it concerns the mutual fastening systems of some components of ceiling lamps.

[0002] Ceiling lamps generally comprise a fastening plate, which is applied to the wall or to the ceiling and to which the lighting elements are fixed, and a translucent part that covers the plate, permits the diffusion of light and also gives the ceiling lamp its aesthetic appearance.

[0003] Some systems for the fixing of the translucent parts of ceiling lamps to the relevant fastening plates are currently known.

[0004] In accordance with one of these systems, the ceiling lamp has the edge bent towards the inside; a system of expansion levers fixes said edge of the ceiling lamp translucent part to the plate.

[0005] In accordance with a second system, instead, the plate is provided with two, three or more supports holding the outer edge of the translucent part; the translucent part can be removed by releasing one or more of said supports.

[0006] A further system requires that the translucent part be provided with one or more holes and fixed to the plate by means of one or more screws passing through said holes.

[0007] In the application of all the known fastening systems it is necessary to use fixing tools or accessories and in any case to use both hands to keep the translucent part in the correct position and tighten the fastening elements or handle the tools at the same time.

[0008] The subject of the present invention is a new system for the fastening of the translucent parts of ceiling lamps to the relevant plates.

[0009] The new fastening system is characterized in that the fastening elements cannot be seen, the fastening operations are quite easy, the translucent part can be fixed to the plate with no need to use common or specific tools.

[0010] The new fastening system is particularly suitable for ceiling lamps having a circular or equivalent shape.

[0011] In accordance with the new fastening system, the plate (or the supports) and the translucent part are fastened to each other by means of pins provided on the plate and corresponding shaped seats provided on the translucent part.

[0012] The plate is generically circular in shape and has U-shaped section, that is, has raised edges. The above mentioned pins are applied to the edges; the pins consist of linear elements with preferably circular section arranged in a practically radial direction towards the outside with respect to the centre of the plate.

[0013] Said pins, which should be at least two and preferably three or more, are arranged in equidistant positions on the perimeter of the plate.

[0014] The translucent part can have any shape and

substantially circular contact surface.

[0015] The diameter of the translucent part near its edge is equal to or longer than the diameter of the plate.

[0016] The inner surface of the translucent part is provided, near its edge, with seats or grooves whose number and position correspond exactly to those of the pins present on the plate.

[0017] Said seats or grooves are open either on the edge side and on the translucent part inner surface side and are U-shaped, with the two sections of the U parallel to each other and perpendicular to the edge of the translucent part; one of the parallel sections of the U is open on the edge of said translucent part, while the other section is slightly longer than the thickness of the plate pins.

[0018] To fix the translucent part to the plate it is sufficient to bring it near the plate, so that the ends of the plate pins fit in the section of the seats or grooves that is open on the edge and to rotate said translucent part so that the pins slide in the section parallel to the edge of the translucent part until reaching and fitting in the second section of the U-shaped groove that does not end on the edge of the translucent part.

[0019] It is possible to provide an elastic element that keeps the translucent part away from the plate, so that to fix the translucent part to the plate, but above all to remove the translucent part from the plate it is necessary to push the translucent part toward the plate in order to move the ends of the plate pins on the intermediate section and successively on the (terminal-initial) section of the U-shaped groove that is open on the edge.

[0020] The fastening system as described above, complete with the elastic element, ensures the quick and safe fastening and removal of the translucent part to/from the plate, with no need to use special tools or to tighten screws or bolts, by simply using the hands and acting on a single object (the translucent part).

[0021] The following is just one among many possible applications of the invention in question, illustrated in the enclosed drawings.

Figure 1 shows a vertical section and a side view of the translucent part (1) and of the plate (2), respectively.

This example shows a seat or groove (1.1) on the translucent part (1) and a pin (2.1) of the plate (2).

Figure 2 shows the translucent part (1) and a plate (2) coupled together.

Figures 3a and 3b show the coupling of the plate pin (2.1) with the seat (1.1) provided on the translucent part (1) in detail in two distinct sections.

[0022] The above are the basic outlines of the invention, on the basis of which the technician will be able to put it into effect; any change which may be necessary upon implementation is to be regarded as completely

protected by the present invention, provided that it is based on the same innovative concept described herein.

[0023] Therefore, with reference to the above description and to the attached drawings, the following claims are put forth. 5

Claims

1. System for the fastening of the translucent parts of ceiling lamps to the relevant plates (supports), characterized in that it comprises a series of radial pins on the plate edges and an equivalent series of grooves on the edge of the translucent parts, said grooves being open on the inner surface and the edge of the translucent parts themselves. 10 15
2. System for the fastening of the translucent parts of ceiling lamps to the relevant plates in accordance with claim 1, characterized in that said grooves are U-shaped, with the two parallel sections of the U arranged perpendicularly to the edge of the translucent part and the intermediate section of the U diametrically opposite the edge of the translucent part, and wherein only one of the parallel sections of the U-shaped groove is open on the edge of the translucent part. 20 25
3. System for the fastening of the translucent parts of ceiling lamps to the relevant plates in accordance with claims 1 and 2, characterized in that the pins of the support are housed in the grooves of the translucent part and reach the closed end of the section of the U-shaped groove that is not open on the edge of said translucent part. 30 35
4. System for the fastening of the translucent parts of ceiling lamps to the relevant plates in accordance with claims 1, 2, 3, characterized in that one or more elastic elements push the translucent part in the opposite direction with respect to the plate, so that the translucent part itself does not rotate and cannot accidentally come off the plate. 40 45 50 55

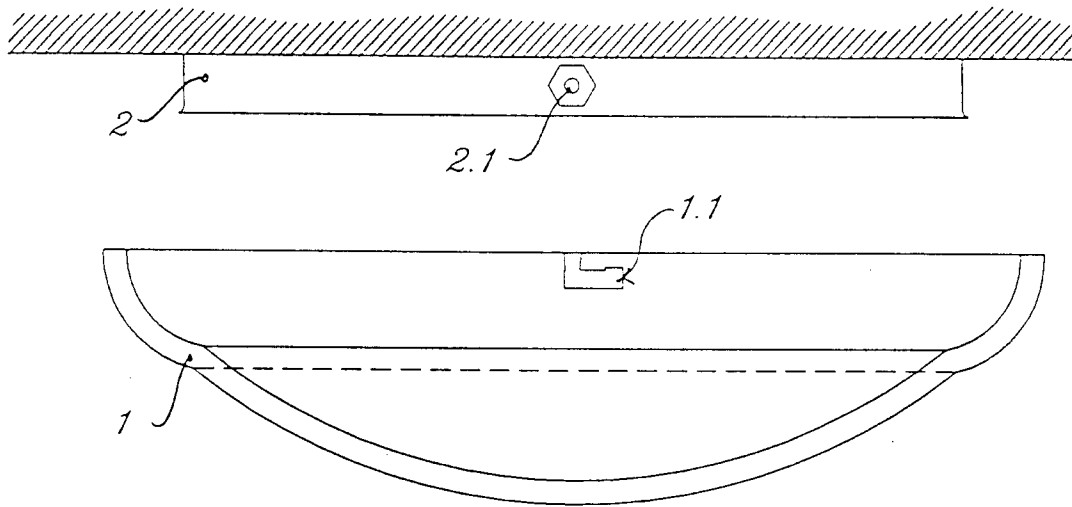


Fig. 1

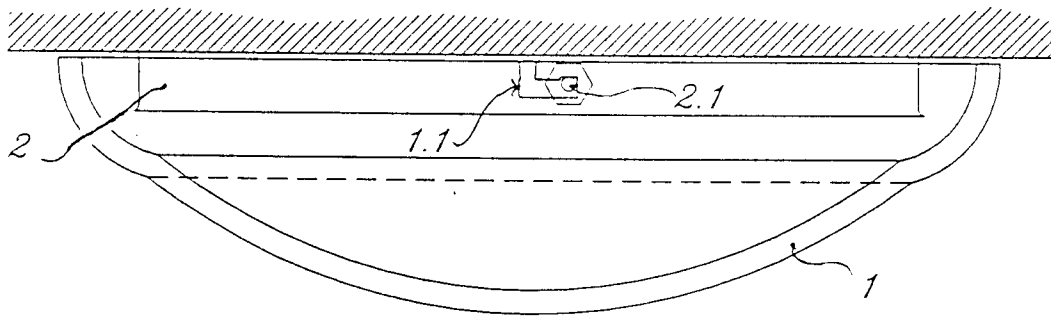


Fig. 2

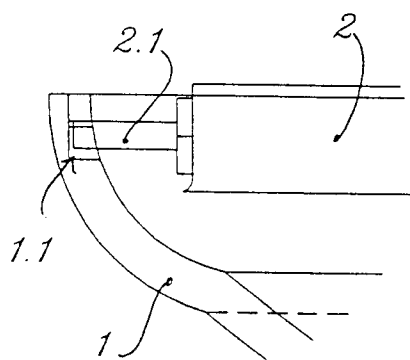


Fig. 3a

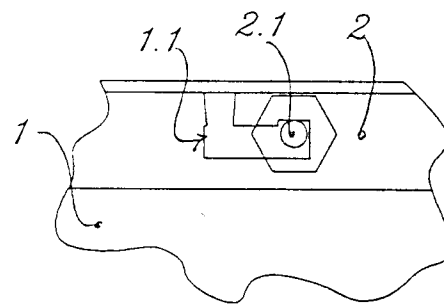
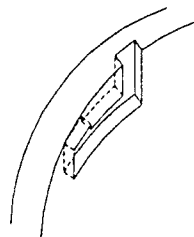


Fig. 3b