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(54) **Lamp for fluorescent tubes**

Leuchte mit Leuchtstoffröhren

Lampe à tubes fluorescents

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Description

[0001] The subject of the present invention is a lamp for fluorescent tubes.

[0002] As is known, there exist numerous types of wall-mounted or ceiling-mounted lamps, which are equipped with a containment body for one or more light sources, in particular rectilinear or circular fluorescent tubes.

[0003] In the presence of such a wide variety of forms and embodiments, it is evident that not all the possibilities of illumination have been exploited.

[0004] An example of a lamp for fluorescent tubes, wherein changing patterns are produced with a displaying portion of the apparatus is disclosed in US 3,245,163. The prior art document shows a component-holder compartment housing a light source associated to an internal reflective element, wherein two rotating elements having openings are provided in front of the light source.

[0005] A purpose of the present invention is therefore to provide a lamp for fluorescent tubes which enables a wide variety of luminous effects to be obtained by means of simple operations on the part of the user.

[0006] Another purpose of the present invention is to provide a lamp for fluorescent tubes that enables the luminous effect produced to be graduated as desired.

[0007] These and other purposes are achieved by a lamp for fluorescent tubes, according to Claim 1, to which the reader is referred for reasons of brevity.

[0008] Further purposes and advantages of the present invention will emerge clearly from the ensuing description and from the annexed drawings, which are provided purely to give explanatory and non-limiting examples, and in which:

- Figure 1 represents a partially sectional view of the lamp for fluorescent tubes according to the present invention; and
- Figures 2-4 represent the lamp according to the invention in different configurations of use of the said lamp.

[0009] With particular reference to Figures 1-4, the lamp for fluorescent tubes according to the invention is designated as a whole by the reference number 10.

[0010] The lamp 10 has a substantially circular shape and is provided with a light source consisting of one or more circular fluorescent tubes, designated by the reference number 17, and is provided with a bottom component-holder compartment 11.

[0011] The lamp 10 also has an internal reflecting element or screen 19, and a fixed silk-screen printed screen 20.

[0012] The lamp 10 is therefore a wall-mounted lamp having an outer aluminium structure for high-luminous-efficiency circular fluorescent tubes, with an internal reflecting element or dish 19 and electronic wiring.

[0013] The lamp 10 is also provided with an electronic power supply 21 and a plurality of rear diffusers 22.

[0014] Associated to the fixed silk-screen printed screen 20 is a grated system consisting of a first, fixed, bottom element 27 and a second top element 12, which is mobile with respect to the fixed bottom element 27.

[0015] The fixed bottom element 27 has a plurality of slats 13 which are substantially parallel to one another. Likewise, the top mobile element 12 has a plurality of slats 14, which are also substantially parallel to one another.

[0016] The top mobile element 12 moreover has a handle 15 that protrudes laterally with respect to the outer surface of the lamp 10 and is provided with a bordered portion 25 that engages corresponding idle gears 23, 24.

[0017] In a preferred embodiment, the idle gears 23, 24 are four in number and are fixed to the fixed bottom element 27 by means of pins 30 and 31 which engage with the bottom component-holder compartment 11.

[0018] To the pins 30, 31 are fixed, respectively, brackets 32 and 33, which co-operate with brackets 34 and 35 fixed to the top mobile element 12 to support the axle of the idle gears 23, 24.

[0019] The co-operation of the parallel slats 13 with the parallel slats 14 makes it possible to define a plurality of openings 16, from which the luminous flux emitted by the light source 17 comes out and which have a different shape, according to the relative position of the top mobile element 12 with respect to the fixed bottom element 27.

[0020] The operation of the lamp for fluorescent tubes which forms the subject of the present invention will emerge more clearly understandable from an examination of Figures 2-4, which represent different positions of the top mobile element 12 with respect to the fixed bottom element 27 which carries the parallel slats 13.

[0021] When the lamp 10 is switched on, it is in fact possible to turn the top mobile element 12 with respect to the fixed bottom element 27, and hence with respect to the parallel slats 13 of the said fixed element 27, thus modifying the shape of the openings 16 and obtaining, as a result, particular and different luminous effects. In other words, the parallel slats 14 of the mobile element 12 define different shapes of the openings 16, according to their relative position with respect to the parallel slats 13 of the fixed element 27.

[0022] The particular luminous effects obtained by means of the lamp 10 are in fact produced by the rotation of the top element 12 with respect to the parallel slats 13 of the fixed bottom element 27 which configures a grated system, all of which is in turn associated to the silk-screen printed screen 20.

[0023] Rotation of the top element 12 with respect to the parallel slats 13 of the fixed bottom element 27 is facilitated by the use of the handle 15.

[0024] In addition, thanks to the movements described, the luminous intensity emitted is varied.

[0025] The characteristics, as well as the advantages, of the lamp for fluorescent tubes, which forms the subject of the present invention, emerge clearly from the foregoing description.

[0026] Finally, it is clear that numerous variations may be made to the lamp for fluorescent tubes, which forms the subject of the present invention, without thereby departing from the principles of novelty inherent in the inventive idea.

[0027] In the practical implementation of the invention, the materials, shapes and sizes of the items illustrated may be any whatsoever according to the requirements, and the said items may be replaced with others that are technically equivalent.

Claims

1. A lamp (10) for fluorescent tubes comprising at least one light source (17) associated to an internal reflecting element (19) and housed in a component-holder compartment (11), comprising a grated system where an element (12) of said system can rotate with respect to a second element (27) so as to define a plurality of openings (16), having variable shapes, through which the luminous flux emitted by the aforesaid light source (17) comes out to produce different luminous effects, the said lamp (10) being **characterized in that** it comprises a silk-screen printed screen (20) and **in that** the aforesaid grated system comprises a first fixed bottom element (27) and a second top element (12), where the aforesaid top element (12) is mobile in rotation with respect to the bottom element, the aforesaid mobile top element (12) having an internal bordered portion (25) which engages with corresponding idle gears (23, 24) fixed to the aforesaid fixed bottom element (27).
2. A lamp (10) according to Claim 1, **characterized in that** the aforesaid fixed bottom element (27) has a plurality of slats (13), which are substantially parallel to one another.
3. A lamp (10) according to Claim 1, **characterized in that** the aforesaid mobile top element (12) has a plurality of slats (14), which are substantially parallel to one another.
4. A lamp (10) according to Claim 3, **characterized in that** the aforesaid mobile top element (12) has a handle (15), which protrudes laterally with respect to outer surface of said lamp (10).
5. A lamp (10) according to Claim 1, **characterized in that** the aforesaid idle gears (23, 24) are four in number.
6. A lamp (10) according to Claim 1, **characterized in**

that the aforesaid idle gears (23, 24) are fixed to the aforesaid fixed bottom element (27) by means of pins (30, 31) which engage with the aforesaid component-holder compartment (11), where to the said pins (30, 31) are respectively fixed brackets (32, 33) which co-operate with brackets (34, 35) fixed to said mobile top element (12) to support the axle of said idle gears (23, 24).

7. A lamp (10) according to Claims 2 and 3, **characterized in that** the co-operation of said parallel slats (13) with said parallel slats (14) enables definition of said plurality of openings (16), from which the luminous flux comes out, and which have different shapes according to the relative position of the mobile top element (12) with respect to the fixed bottom element (27).

Patentansprüche

1. Leuchte (10) für Leuchtstoffröhren, zumindest eine Lichtquelle (17) aufweisend, die mit einem inneren Reflexionselement (19) zusammenwirkt und in einem Kasten (11) zur Aufnahme von Bauteilen aufgenommen ist, wobei die Leuchte ein Gittersystem aufweist mit einem Element (12) des Systems, das in Bezug auf ein zweites Element (27) drehbar ist, um eine Vielzahl von Öffnungen (16) unterschiedlicher Größe zu bilden durch welche der von der genannten Lichtquelle (17) emittierte Lichtstrom die Leuchte verlässt, um unterschiedliche Beleuchtungseffekte zu erreichen, wobei die Leuchte (10) **dadurch gekennzeichnet ist, dass** sie einen durch Siebdruck bedruckten Schirm (20) aufweist und dass das genannte Gittersystem ein erstes, feststehendes Bodenteil (27) und ein zweites Deckelteilelement (12) aufweist, wobei das genannte Deckelteilelement (12) in Bezug auf das Bodenteil drehbar ist und wobei das genannte bewegliche Deckelelement (12) einen internen Randabschnitt (25) aufweist, der mit zugeordneten Leerlaufgetrieberädern (23, 24) in Eingriff steht, die an dem genannten Bodenteil (27) befestigt sind.
2. Leuchte (10) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** das genannte feststehende Bodenteil (27) eine Reihe von Schlitzten (13) aufweist, die im wesentlichen parallel zueinander verlaufen.
3. Lampe (10) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** das genannte bewegliche Deckelelement (12) eine Vielzahl von Schlitzten (14) aufweist, die sich im wesentlichen parallel zueinander erstrecken.
4. Leuchte (10) gemäß Anspruch 3, **dadurch gekennzeichnet, dass** das vorstehend genannte bewegliche

che Deckelelement (12) einen Handgriff (15) aufweist, der seitwärts von der Außenfläche der Leuchte (10) vorsteht.

5. Leuchte (10) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die genannten Leerlaufgetrieberäder (23, 24) vier an der Zahl sind. 5
6. Leuchte (10) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die genannten Leerlaufgetrieberäder (23, 24) mittels Stiften (30, 31) an dem genannten feststehenden Bodenteil (27) befestigt sind, welche mit dem genannten Bauteile aufnehmenden Kasten (11) verbunden sind, wobei an den genannten Stiften (30, 31) jeweils Klammern (32, 33) befestigt sind, die mit Klammern (34, 35) zusammenwirken, welche an dem genannten beweglichen Deckteil (12) befestigt sind, um die Achse der genannten Leerlaufgetrieberäder (23, 24) abzustützen. 10 15 20
7. Leuchte (10) gemäß einem der Ansprüche 2 oder 3, **dadurch gekennzeichnet, dass** ein Zusammenwirken der genannten parallelen Schlitz (13) mit den genannten parallelen Schlitz (14) eine Einstellung der Mehrzahl von Öffnungen (16), aus denen das Licht austritt, mit unterschiedlichen Formgebungen entsprechend der Relativstellung des beweglichen Deckelelementes (12) in Bezug auf das feststehende Bodenteil (27) ermöglicht. 25 30

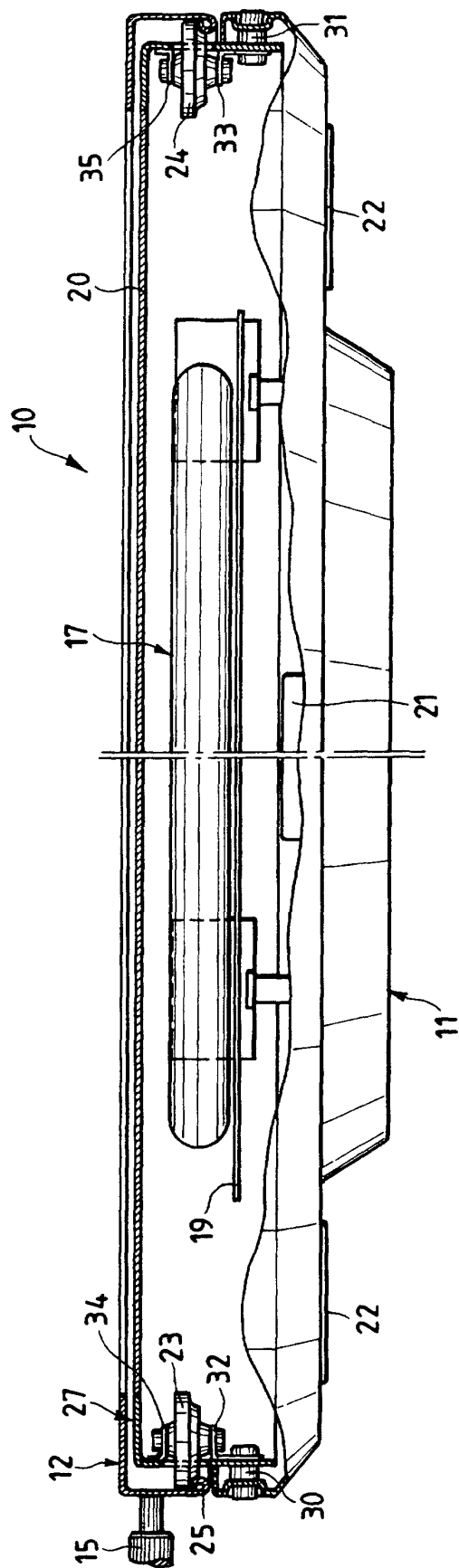
Revendications

1. Lampe (10) destinée à des tubes fluorescents comprenant au moins une source lumineuse (17) associée à un élément réfléchissant interne (19) et logée dans une enceinte de support de composant (11), comportant un système à grille dans lequel un élément (12) dudit système peut tourner par rapport à un second élément (27) de façon à définir une pluralité d'ouvertures (16), présentant des configurations variables, à travers lesquelles le flux lumineux émis par la source lumineuse susdite (17) sort pour produire différents effets lumineux, ladite lampe (10) étant **caractérisée en ce qu'elle** comprend un écran sérigraphié (20), et **en ce que** le système à grille susdit comporte un premier élément inférieur fixe (27) et un second élément supérieur (12), dans lequel l'élément supérieur susdit (12) est mobile en rotation par rapport à l'élément inférieur, l'élément supérieur mobile susdit (12) comportant une partie de bordure interne (25) qui coopère avec des pignons fous correspondants (23, 24) fixés à l'élément inférieur fixe susdit (27). 35 40 45 50 55
2. Lampe (10) selon la revendication 1, **caractérisée en ce que** l'élément inférieur fixe susdit (27) comporte une pluralité de lattes (13) qui sont essentiel-

lement parallèles les unes aux autres.

3. Lampe (10) selon la revendication 1, **caractérisée en ce que** l'élément supérieur mobile susdit (12) possède une pluralité de lattes (14) qui sont essentiellement parallèles les unes aux autres.
4. Lampe (10) selon la revendication 3, **caractérisée en ce que** l'élément supérieur mobile susdit (12) comporte une poignée (15) qui fait saillie latéralement par rapport à la surface extérieure de ladite lampe (10).
5. Lampe (10) selon la revendication 1, **caractérisée en ce que** les pignons fous susdits (23, 24) sont au nombre de quatre.
6. Lampe (10) selon la revendication 1, **caractérisée en ce que** les pignons fous susdits (23, 24) sont fixés à l'élément inférieur fixe susdit (27) au moyen de broches (30, 31) qui coopèrent avec l'enceinte de support de composant susdit (11) dans lequel aux dites broches (30, 31) sont respectivement fixés des supports (32, 33) qui coopèrent avec des supports (34, 35) fixés audit élément supérieur mobile (12) pour supporter l'axe desdits pignons fous (23, 24).
7. Lampe (10) selon les revendications 2 et 3, **caractérisée en ce que** la coopération desdites lattes parallèles (13) avec lesdites lattes parallèles (14) permet une définition de ladite pluralité d'ouvertures (16), d'où sort le flux lumineux et qui présentent des configurations différentes en fonction de la position relative de l'élément supérieur mobile (12) par rapport à l'élément inférieur fixe (27).

Fig.1



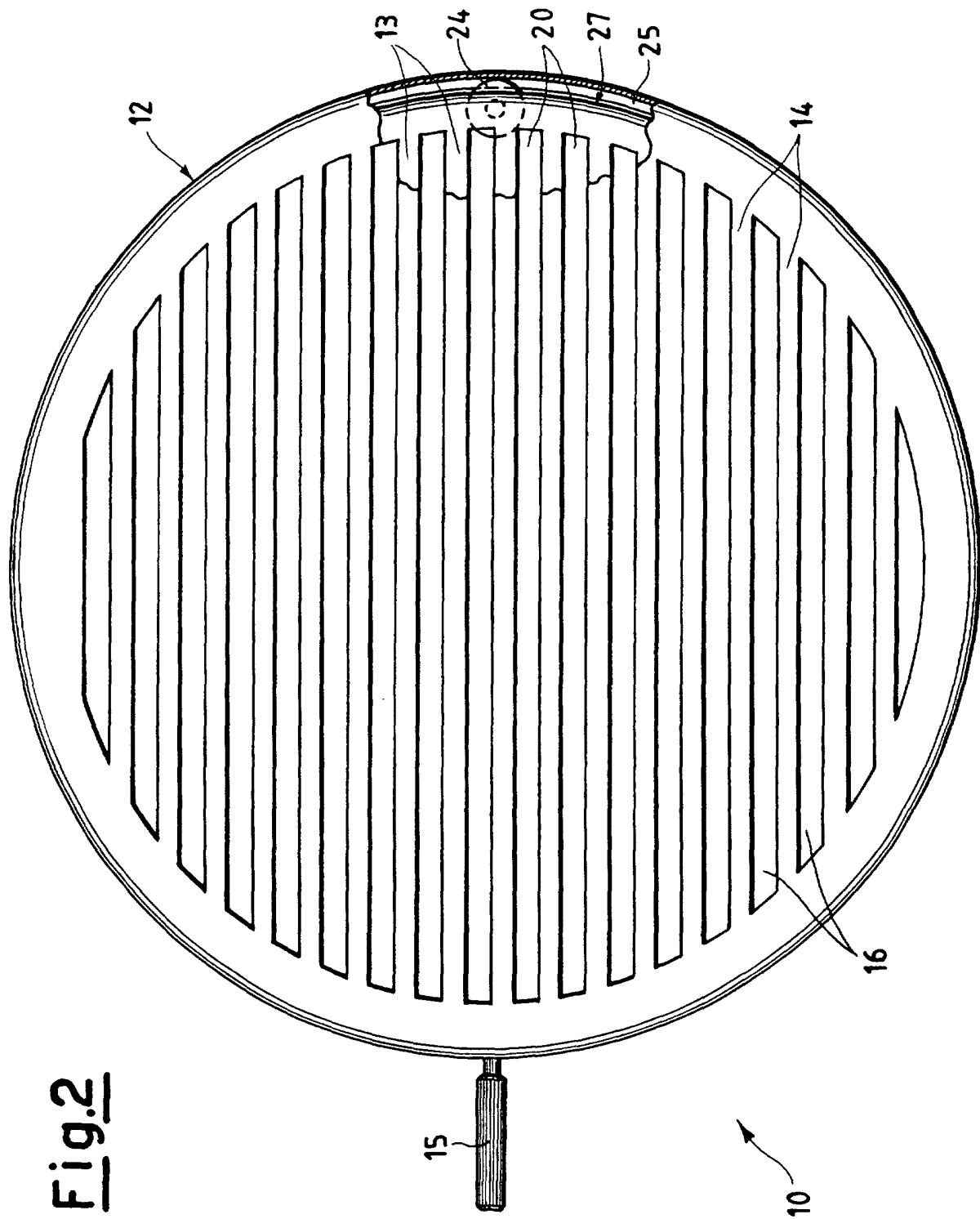


Fig.3

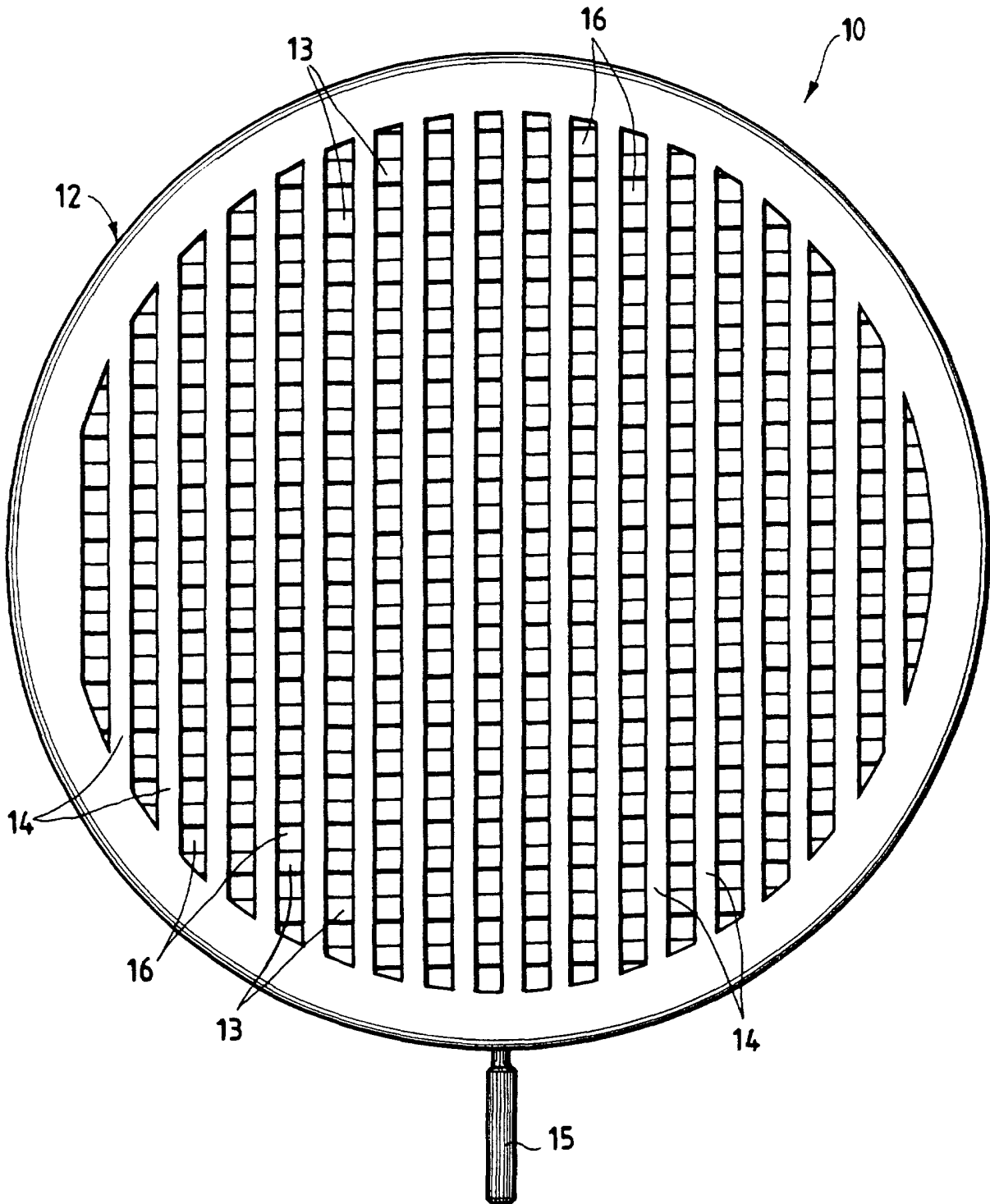


Fig.4

