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(54) **A LAMPSHADE, A COVERING, AND A KIT OF LAMPSHADE COMPONENTS**

(57) A lampshade (1) comprises at least one of an upper ring (3) and a lower ring (4), and a covering (7) which is releasably mounted to at least one of said upper ring (3) and lower ring (4). The covering (7) comprises a U-shaped connection element (8) including cooperating legs (9) between which one of the rings (3, 4) is engaged.

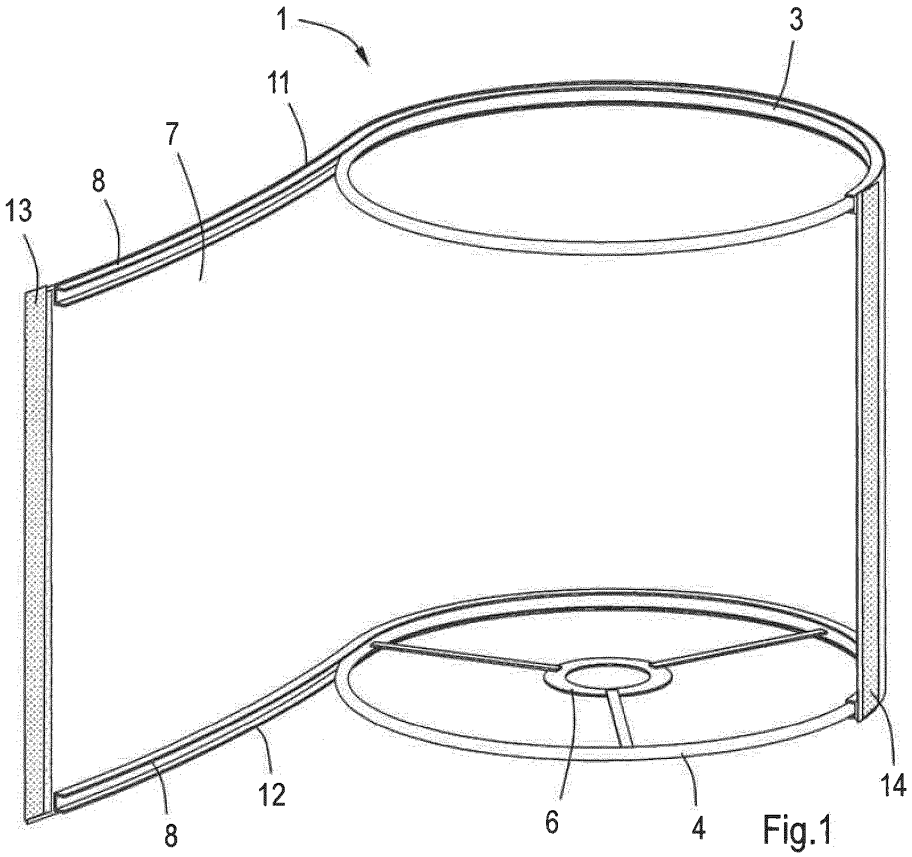

Fig.1

EP 3 112 744 A1

Description

[0001] The present invention relates to a lampshade, which comprises at least one of an upper ring and a lower ring, and a covering which is releasably mounted to at least one of said upper ring and lower ring.

[0002] Such a lampshade is known from EP 2 098 777. The known lampshade includes an upper ring and a lower ring to which the covering is attachable by means of hook and loop materials. When not in use, the rings and covering can be detached from each other to reduce space occupation, saving stock, packaging and delivery cost. The user can replace the lampshade covering to provide a different design when desired with the possibility to reuse the existing rings.

[0003] A conventional lampshade for table lamp, floor lamp, pendant lamp, ceiling lamp, wall lamp generally comprises a lampshade frame and a lampshade covering. The lampshade frame comprises an upper ring and a lower ring. The upper ring and the lower ring are fastened together, forming the frame. The lampshade covering is sleeved onto the frame structure and both the left and right side of the lampshade covering are sewed or glued together. According to this design, the frame structure of the lampshade frame can not be disassembled.

[0004] The known lampshade of which the covering is attached to the rings by means of hook and loop materials, as described hereinbefore, has several disadvantages. The covering must be positioned to the rings accurately in order to avoid that the rings extend visibly beyond an upper edge or lower edge of the covering. Furthermore, during positioning the covering onto the rings the hook and loop materials tend to adhere to each other prematurely, which makes accurate positioning difficult. Besides, the upper and lower ring must have a relatively large width to receive a strip of hook or loop material. Therefore, the covering cannot be applied to conventional thin upper and lower rings which are relatively thin and which often have a circular cross-section.

[0005] An object of the present invention is to provide a lampshade which takes away the disadvantages as mentioned hereinbefore.

[0006] This object is achieved with the lampshade according to the invention which is characterized in that the covering comprises a U-shaped connection element including cooperating legs between which one of the rings is engaged.

[0007] An advantage of the lampshade according to the invention is that the U-shaped connection element has a well-defined position with respect to the corresponding ring to which it is engaged. This makes securing of the covering to the corresponding ring easy and accurately. Furthermore, the ring(s) and the covering can be shipped separately. In case of lampshades having separate upper rings and lower rings, the rings as well as the coverings can be transported in the form of compact stacked articles. Another advantage of a removable covering is that it can be cleaned and placed back to the ring(s).

[0008] It is noted that the upper ring and/or the lower ring may be circular, oval, polygonal, square, rectangular, etc. The upper ring and/or lower ring may have different shapes and/or different dimensions. For example, the lampshade may have a frusto-conical configuration. Furthermore, the cross-section of the ring may be circular, oval, polygonal, square, rectangular, etc. The parts of the frame may be made of metal or an alternative material. The terms upper ring and lower ring mean that there is a distance between the rings in a direction perpendicular to the planes of the rings. In general, the upper ring lies above the lower ring when the lampshade is in use.

[0009] In a practical embodiment the lampshade comprises an upper ring and a lower ring, wherein the covering has an upper U-shaped connection element including cooperating legs between which the upper ring is engaged and a lower U-shaped connection element including cooperating legs between which the lower ring is engaged. If the covering has only one U-shaped connection element and the lampshade has either an upper ring or a lower ring to which the connection element is engaged, the covering may be rather stiff in order to remain in a desired shape at an upper or lower side thereof which is not fixed to a ring. The upper and lower ring may be separate components in order to be able to transport disassembled lampshades efficiently. It is also conceivable that the upper and lower ring are fixed to each other like conventional lampshade frames.

[0010] At least one of the legs may be flexible. This provides the opportunity to increase the width between the legs during fastening, such that the covering can be installed manually. Due to the at least one flexible leg removal of the covering is also easy and possible without destruction of the covering or the corresponding ring. In practice, both legs may be flexible.

[0011] Preferably, the connection element is elongate in circumferential direction of the corresponding ring, since this provides a continuous attachment between the ring and the covering in circumferential direction of the ring. In a practical embodiment the connection element substantially extends along the entire corresponding ring.

[0012] At least one of the flexible legs may be provided with a projection facing the opposite leg, which projection hooks behind the corresponding ring so as to lock the covering with respect to said ring. This creates a type of clip or snap fit.

[0013] The connection element may be made of a flexible material, preferably polymerized siloxanes. This causes an appropriate resistance at relatively low clamping force.

[0014] In a specific embodiment the covering has an upper edge and a lower edge which surround respective openings at opposite sides of the lampshade, and the covering has end portions between the upper and lower edge which are located opposite to each other in a direc-

tion along the upper and lower edges, wherein one of the end portions is releasably attached to the other end portion.

[0015] The invention is also related to a covering for a lampshade, comprising a flexible sheet having a first edge and a second edge which extend opposite to each other, wherein at least at one of the first edge and the second edge a U-shaped connection element is provided, wherein the U-shaped connection element includes cooperating legs for engagement to an upper ring or a lower ring of a lampshade, which legs may be directed away from the sheet, for example perpendicularly to the sheet. At least one of the legs may be flexible.

[0016] The invention is also related to a kit of lampshade components, comprising at least one of an upper ring and a lower ring, and a covering, wherein the covering comprises a flexible sheet having a first edge and a second edge which extend opposite to each other, wherein at least at one of the first edge and the second edge a U-shaped connection element is provided, wherein the U-shaped connection element includes cooperating legs for engagement to one of said rings, which legs may be directed away from the sheet, for example extending perpendicularly to the sheet. It is also conceivable that the kit comprises at least one of an upper ring and a lower ring, and a flexible sheet having a first edge and a second edge which extend opposite to each other, and a U-shaped connection element to be attached at least at one of the first edge and the second edge, wherein the U-shaped connection element includes cooperating legs for engagement to one of said rings. In the latter case the user can attach the U-shaped connection element to the covering.

[0017] If the lampshade is marketed as a kit, the purchaser has greater choice as to designs, colours, shape, etc. It is possible for example, that the user purchases a kit which is a combination of rings and a covering with a self-designed printed decor thereon.

[0018] The invention will hereafter be elucidated with reference to very schematic drawings showing embodiments of the invention by way of example.

Fig. 1 is a perspective view of an embodiment of a lampshade according to the invention, illustrating the manner in which a covering is releasably mounted to an upper ring and a lower ring of the lampshade.
Fig. 2 is an enlarged cross-sectional view of a part of the lampshade as shown in Fig. 1.
Figs. 3-7 are similar views as Fig. 2, showing alternative embodiments.

[0019] Fig. 1 shows an embodiment of a lampshade 1 according to the invention. The lampshade 1 comprises a circular upper ring 3 and a circular lower ring 4, which extend in parallel planes. The rings 3, 4 define the shape of the lampshade 1, in this case a cylindrical shape. The upper and lower ring 3, 4 have circular cross-sections. This can be seen in Fig. 2 for the upper ring 3. In this case, the upper ring 3 and lower ring 4 are separate from each other, but in an alternative lampshade (not shown) they may be fixed to each other by means of a frame structure.

[0020] The lower ring 4 is provided with a central hub 6 which fits over a threaded stud of a supporting lamp foot (not shown). The central hub 6 can be secured to the stud by a cap screw, for example. The lower ring 4 is fixed to the central hub 6 by means of three radial arms which are positioned equiangularly about the centreline of the lampshade 1. In practice the rings 3, 4 are made of corrosion resistant material. The shape of the embodiment as shown in Fig. 1 is just an example. Numerous alternative lampshades, varying in shape and dimensions, are conceivable.

[0021] The lampshade 1 as shown in Fig. 1 comprises a covering 7 which is releasably mounted to the upper ring 3 and lower ring 4. The covering 7 is made of a flexible sheet and is used to diffuse the light of a bulb which is inside the lampshade 1. Fig. 2 shows in detail in what manner the covering 7 is secured to the upper ring 3. The covering 7 is provided with a U-shaped connection element 8 which is attached to the sheet of the covering 7, for example by means of an adhesive. The U-shaped connection element 8 has flexible legs 9 which engage the upper ring 3, as shown in Fig. 2. The connection element 8 is made of a flexible material, for example polymerized siloxanes. The covering 7 is also provided with a similar connection element 8 at the lower ring 4. Both connection elements 8 extend in circumferential direction of the upper ring 3 and lower ring 4, respectively. The legs 9 of each connection element 8 are directed away from the sheet of the covering 7 in radial direction towards the centreline of the lampshade 1.

[0022] In the embodiment as shown in Fig. 2 the legs 9 engage the upper ring 3 by means of clamping. This causes sufficient friction between the legs 9 and the upper ring 3 to hold the covering 7 against the upper ring 3. It is also possible to create a snap fit as illustrated in the embodiments as shown in Figs. 3-5. In the embodiments as shown in Figs. 4 and 5 the legs 9 are provided with respective projections 10 facing to each other. The projections 10 serve to lock the covering 7 at the connection element 8 in radial direction with respect to the upper and lower rings 3, 4. In the embodiment according to Fig. 3 end portions of the legs 9 are bent to each other in order to create a kind of snap fit.

[0023] Fig. 1 shows that the lampshade 1 has a first edge or upper edge 11 and a second edge or lower edge 12. The upper edge 11 and the lower edge 12 are located opposite to each other. In the embodiment as shown in Fig. 1 the upper edge 11 and the lower edge 12 extend parallel to each other. In assembled condition the upper edge 11 surrounds an opening at the top side of the lampshade 1 and the lower edge 12 surrounds an opening at the bottom side of the lampshade 1. The covering 7 has end portions 13, 14 between the upper and lower edges 11, 12. The end portions 13, 14 are located opposite to

each other in a direction along the upper and lower edges 11, 12. If the covering 7 is taken from the upper and lower rings 3, 4 it has a rectangular shape bordered by the upper and lower edges 11, 12 and the end portions 13, 14. Fig. 1 shows that the end portion with reference sign 13 is provided with a Velcro strip at the inner side of the covering 7 which is directed to the centreline of the lampshade 1, whereas the opposite end portion with reference sign 14 is provided with a cooperating Velcro strip at the outer side of the covering 7 which is directed in a direction away from the centreline of the lampshade 1.

[0024] Fig. 6 shows a part of an alternative embodiment of the lampshade 1. This embodiment is substantially similar to the aforesaid embodiments with the exception that the U-shaped connection elements 8 are secured at inside walls of the upper ring 3 and lower ring 4, respectively. Portions along the upper edge 11 and the lower edge 12 of the covering 7 are respectively folded downwards or upwards to force the connection elements 8 into engagement with the upper ring 3 and the lower ring 4, respectively.

[0025] Fig. 7 shows a part of still an alternative embodiment of the lampshade 1. In this case one of the legs 9 of the U-shaped connection element 8 is secured to the inner side of the sheet of the covering 7, such that a base of the U-shaped connection element 8 is directed radially towards the centreline of the lampshade 1 and the other leg 9 at the opposite side of the base of the U-shaped connection element 8 extends in the same direction as the centreline of the lampshade 1 at a distance from the sheet of the covering 7.

[0026] The covering 7 may be made of a single sheet, but it may also have a plurality of sheets. For example, it may comprise a fabric covered by a light transmissive film. In assembled condition the fabric may be at the outer side or the light translucent film may be at the outer side.

[0027] From the foregoing, it will be clear that the invention provides a lampshade with an upper ring, a lower ring and a covering, which can be assembled and disassembled quickly, easily and accurately.

[0028] The invention is not limited to the embodiments shown in the drawings and described hereinbefore, which may be varied in different manners within the scope of the claims and their technical equivalents. For example, it is conceivable that the covering is only secured to either the upper ring or the lower ring. Furthermore the lampshade may have an alternative shape than cylindrical. The upper and lower rings may be part of an existing lampshade frame. This enables a customer to cover an existing frame by a new covering having a desired new decor, for example.

Claims

1. A lampshade (1), comprising at least one of an upper ring (3) and a lower ring (4), and a covering (7) which is releasably mounted to at least one of said upper ring (3) and lower ring (4), **characterized in that** the covering (7) comprises a U-shaped connection element (8) including cooperating legs (9) between which one of said rings (3, 4) is engaged.

2. A lampshade (1) according to claim 1, wherein at least one of the legs (9) is flexible.

3. A lampshade (1) according to claim 1 or 2, wherein the connection element (8) is elongate in circumferential direction of the corresponding ring (3, 4).

4. A lampshade (1) according to one of the preceding claims, wherein the connection element (8) substantially extends along the entire corresponding ring (3, 4).

5. A lampshade (1) according to one of the preceding claims, wherein at least one of the legs (9) is provided with a projection (10) facing the opposite leg (9), which projection (10) hooks behind the corresponding ring (3, 4) so as to lock the covering (7) with respect to said ring (3, 4).

6. A lampshade (1) according to one of the preceding claims, wherein the connection element (8) is made of a flexible material, preferably polymerized siloxanes.

7. A lampshade (1) according to one of the preceding claims, wherein the covering (7) has an upper edge (11) and a lower edge (12) which surround respective openings at opposite sides of the lampshade (1), and the covering (7) has end portions (13, 14) between the upper and lower edge (11, 12) which are located opposite to each other in a direction along the upper and lower edges (11, 12), wherein one of the end portions (13) is releasably attached to the other end portion (14).

8. A covering (7) for a lampshade (1), comprising a flexible sheet having a first edge (11) and a second edge (12) which extend opposite to each other, wherein at least at one of the first edge (11) and the second edge (12) a U-shaped connection element (8) is provided, wherein the U-shaped connection element (8) includes cooperating legs (9) for engagement to an upper ring (3) or a lower ring (4) of a lampshade (1).

9. A covering (7) according to claim 8, wherein the legs (9) are directed away from the sheet.

10. A covering (7) according to claim 8 or 9, wherein at least one of the legs (9) is flexible.

11. A covering (7) according to one of the claim 8-10, wherein the connection element (8) is elongate and extends along at least one of the first edge (11) and

the second edge (12).

12. A covering (7) according to one of the claims 8-11, wherein at least one of the legs (9) is provided with a projection (10) facing the opposite leg (9).

13. A covering (7) according to one of the claims 8-12, wherein the connection element (8) is made of a flexible material, preferably polymerized siloxanes.

14. A kit of lampshade components, comprising at least one of an upper ring (3) and a lower ring (4), and a covering (7), wherein the covering (7) comprises a flexible sheet having a first edge (11) and a second edge (12) which extend opposite to each other, wherein at least at one of the first edge (11) and the second edge (12) a U-shaped connection element (8) is provided, wherein the U-shaped connection element (8) includes cooperating legs (9) for engagement to one of said rings (3, 4), or wherein the kit comprises at least one of an upper ring (3) and a lower ring (4), and a flexible sheet having a first edge (11) and a second edge (12) which extend opposite to each other, and a U-shaped connection element (8) to be attached at least at one of the first edge (11) and the second edge (12), wherein the U-shaped connection element (8) includes cooperating legs (9) for engagement to one of said rings (3, 4).

15. A kit according to claim 14, wherein the legs (9) are directed away from the sheet.

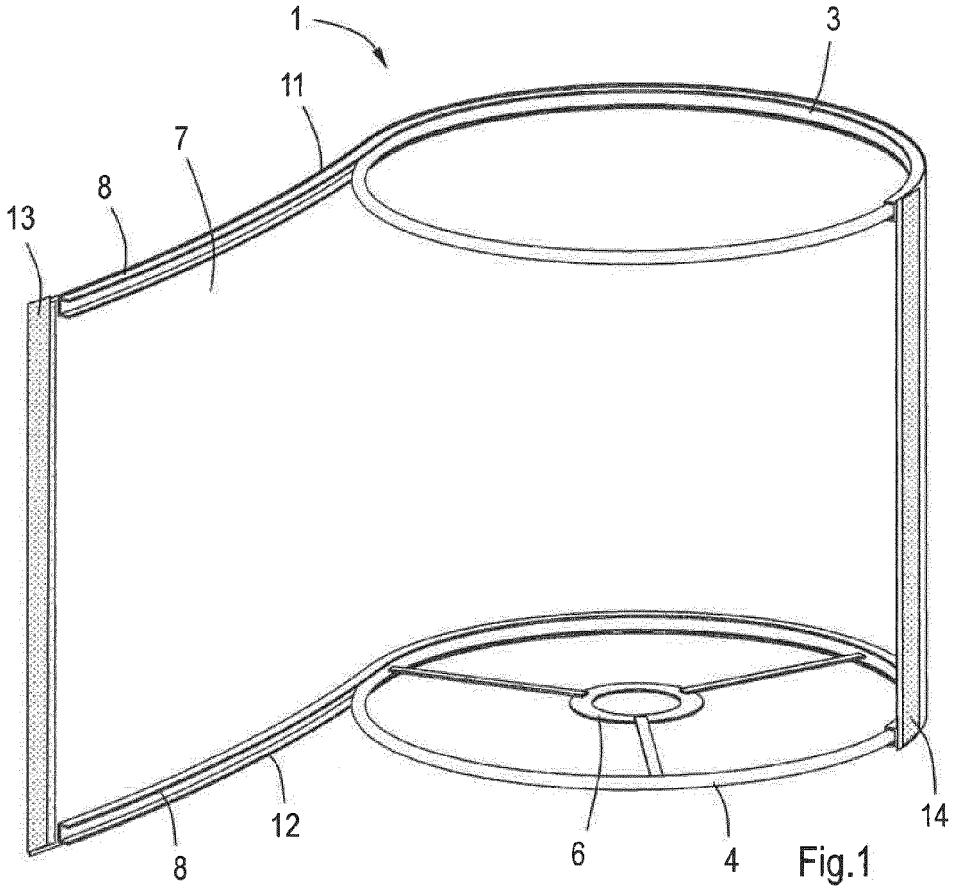

Fig.1

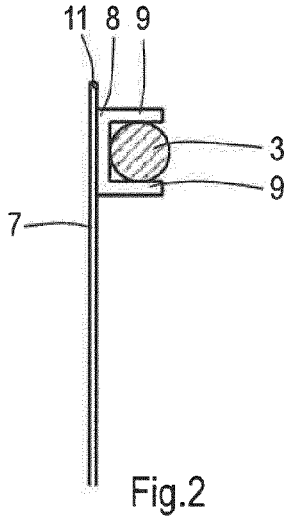

Fig.2

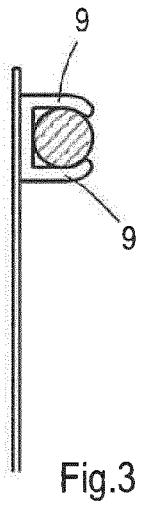

Fig.3

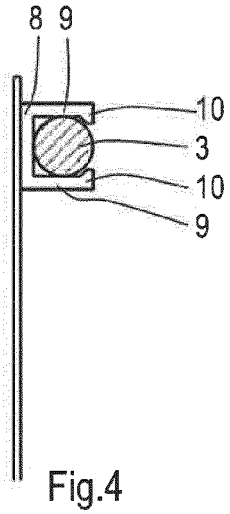

Fig.4

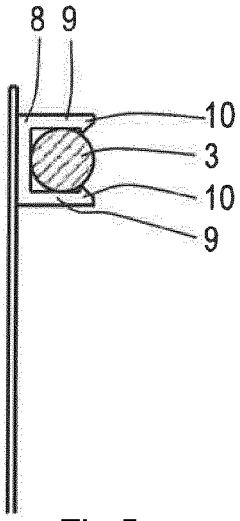

Fig.5

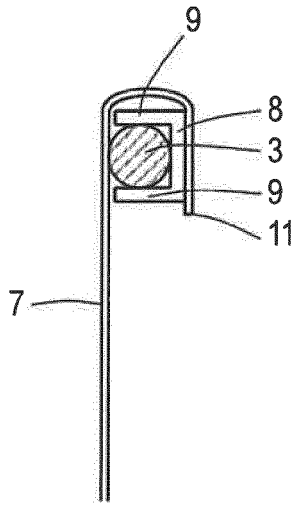

Fig.6

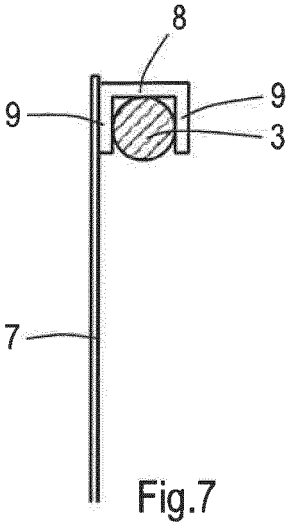

Fig.7

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EUROPEAN SEARCH REPORT

Application Number
EP 15 17 5064

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	FR 2 405 427 A1 (LEVIEL JEAN LUC [FR]) 4 May 1979 (1979-05-04) * figures * -----	1-15	INV. F21V1/14 F21V1/00 F21V1/12
X	EP 2 538 129 A1 (WU WILSON [TW]) 26 December 2012 (2012-12-26) * figures 4-6 * -----	1-15	F21V17/00 F21V17/02 F21V17/06 F21V17/16
X A	US 3 787 676 A (KORACH I) 22 January 1974 (1974-01-22) * figures 1-4 * -----	1-4,6-8, 10,11, 13,14 15	F21V1/06

TECHNICAL FIELDS SEARCHED (IPC)

F21V

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	7 September 2015	Kebemou, Augustin

CATEGORY OF CITED DOCUMENTS

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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EP 2538129 A1	26-12-2012	NONE	
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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