

(19)



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(11)

EP 0 947 764 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:

07.05.2003 Bulletin 2003/19

(51) Int Cl.7: **F21V 21/03**

(21) Application number: **99830150.1**

(22) Date of filing: **19.03.1999**

(54) **Anchoring apparatus for chandeliers**

Verankerungsvorrichtung für Kronleuchter

Dispositif d'ancrage pour lustre

(84) Designated Contracting States:
DE ES FR GB IT SE

(30) Priority: **03.04.1998 IT F1980078**

(43) Date of publication of application:
06.10.1999 Bulletin 1999/40

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(56) References cited:
DE-A- 1 414 642 **US-A- 1 843 201**
US-A- 3 843 086

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Description

[0001] The present invention refers to an apparatus for anchoring chandeliers.

[0002] For anchoring a chandelier to the ceiling use is currently made of a double, S-shaped hook, the upper side of which is engaged with a hook fixed to the ceiling while the other side is engaged with an eyelet element, usually made of metal, connected to the chandelier mount. With the term "mount" it is meant an assembly made up of a generally metal sleeve through which an electrical cable is passed for feeding power to the chandelier; on the end of said sleeve, that is, on the same side of said eyelet element, a so-called cable retainer body made of plastics being fixed for retaining the cable.

[0003] The use of the "S" hook, however, implies an unstable and unsafe anchorage of the chandeliers. Moreover, the presence of the eyelet connected to the mount is detrimental as far as the cost and time of installation are concerned.

[0004] US-A-3 843 086 and US-A-1 843 201 disclose anchoring apparatus.

[0005] The main object of the present invention is to provide a chandelier-anchoring apparatus of simpler use.

[0006] A further object of the present invention is to provide a chandelier-anchoring apparatus which, in addition to being easier to use, will ensure safety and stability once installed in place.

[0007] This result has been achieved, according to the invention, by providing an apparatus having the features indicated in the characterizing part of claim 1. Further characteristics being set forth in the dependent claims.

[0008] The advantages deriving from the present invention lie essentially in that it is possible to provide an effective and safe anchorage of the chandeliers to the ceiling; that the present anchoring apparatus is simple to make, cost-effective, reliable even after a prolonged service life, readily and quickly installable also on chandeliers already fitted on their mounts; that - since the apparatus in question engages directly the cable retainer, that is, the mount proper - no use is made of the metal eyelet conventionally associated to the mount, nor of the "S" hook.

[0009] These and other advantages and characteristics of the invention will be best understood by anyone skilled in the art from a reading of the following description in conjunction with the attached drawings, which are not to be considered in a limitative sense, wherein:

- Figs. 1A and 1B are respectively a perspective, exploded view and an ensemble view of a mount for chandeliers which does not make part of the invention but is mentioned here for illustrative purpose;
- Figs. 2A and 2B are respectively a perspective, exploded view and an ensemble view of a mount for chandeliers which is provided with a second em-

bodiment of anchoring apparatus according to the invention;

- Figs. 3A-3C are, respectively, an elevation front view of the cable retainer belonging to the mount shown in Figs. 1A-2B, a section view taken on line F-F of Fig. 3A and a section view taken on line G-G of Fig. 3A, wherein numeral (72) indicates the channel through which the power cable for the chandelier is made to pass;
- Figs. 4A and 4B are, respectively, a schematic view of the chandelier anchored at the ceiling by means of the apparatus shown in Figs. 1A-1B and an enlarged detail of the hook applied to the ceiling and the mount anchored thereto.

[0010] Reduced to its basic structure, and reference being made to the figures of the attached drawings, a chandelier-anchoring apparatus consists of a body (1) with two appendixes (10) elastically stretchable apart and intended to engage, on opposite sides, the mount (M) of the chandelier. On the side opposite to said appendixes (10), the body (1) exhibits a portion (12) shaped like an eyelet (see Figs. 1A, 1B, 4A, 4B) for the anchoring thereof to a hook (3) hanging from the ceiling (4) in correspondence of the site chosen for the installation of the chandelier (5).

[0011] According to the embodiment shown in Figs. 2A, 2B and 3B, the portion (12) of said body (1), intended to engage the hook (3) to hang the chandelier from the ceiling, is in turn shaped as a hook.

The said mount (M) is made up of a sleeve (2) for the chandelier power cable to go through it and of a cable retainer (7), the latter being made of plastics material and able to be screwed onto the upper portion (20) of the sleeve (2). The cable retainer (8) can be fixed to the sleeve (2) by means of a metal screw (8) that can be screwed across the cable retainer orthogonally to the axis of the same sleeve. The cable (6) can be fixed to the cable retainer (7) by a corresponding screw made of plastics material (9) and going across the longitudinal axis of the cable retainer.

[0012] Advantageously, said body (1) can be formed in a single, substantially filiform metal element.

Advantageously, the cable retainer (7) of the mount (M) has two diametrically opposite seats (70) to receive therein the elastically stretchable apart appendixes (10) of said body (1). The size and orientation of said seats (70) of cable-retainer (7) correspond substantially to those of the appendixes (10) of body (1).

[0013] Moreover, advantageously, the elastically stretchable apart appendixes (10) of said body (1) are formed by the end lengths, bent over 90°, of two corresponding arms (11) which, in turn, make up the respective extensions of the portion (12) to be engaged with the hook (3) of the ceiling.

[0014] Advantageously, provision is also made for the elastically stretchable appendixes (10) of said body (1) to be so oriented as to have their respective free ends

disposed opposite to each other.

[0015] For the body (1) to be fitted more easily on the cable retainer (7), the head portion of the latter, that is, the portion of the cable retainer (7) opposite to the one which is to be screwed on the sleeve (2), is suitably shaped so as to have two surfaces (71) converging towards the outside and terminating in correspondence of said seats (70). This makes it possible to fix the body (1) to the cable retainer (7) by merely exerting a pressure, that is, forcing the appendixes (10) of the body (1) to slide onto the respective surfaces (71) of the cable retainer (7), thereby making them to stretch apart until each appendix (10) is received into the respective seats (70).

With the body (1) thus fixed to the cable retainer (7), that is, to the mount (M) which the cable retainer is an integral part of, as described in the examples with reference to the attached drawings, it is possible to anchor the chandelier (5) to the hook (3) of the ceiling by simply fitting the portion (12) of body (1) onto the hook (3). The hook (3) may then be bent over until its free end is in contact with the ceiling surface (4) (as illustrated in Figs. 4A and 4B, in which said hook is represented in its final or bent over condition).

[0016] In particular, by using the anchoring apparatus with the portion (2) of body (1) shaped as an eyelet, there is obtained a higher degree of safety, in addition to a simpler application and installation.

The cable retainer (7) is provided with an appendix (72) for supporting a terminal-clamping plate (73).

Claims

1. Chandelier anchoring apparatus provided with a mount (M), comprising a body (1) with two appendixes (10) elastically stretchable apart and able to elastically engage the mount (M) on two corresponding surfaces thereof, and with a portion (12) intended to engage a hook (3) protruding down from the ceiling (4) in correspondence of the installation site being chosen, **characterized in that** the mount (M) exhibits a cable retainer (7) and the latter is provided with an appendix (72) able to support a terminal-clamping plate (73).
2. Apparatus according to claim 1, **characterized in that** said portion (12) of said body (1) is eyelet shaped.
3. Apparatus according to claim 1, **characterized in that** said portion (12) of said body (1) is hook shaped.
4. Apparatus according to claim 1, **characterized in that** said body (1) is in one, substantially filiform metal piece.

5. Apparatus according to claim 1, **characterized in that** said mount (M) comprises a cable retainer (7) which exhibits two diametrically opposite seats (70) to receive therein the elastically stretchable appendixes (10) of said body (1).
6. Apparatus according to claim 1, **characterized in that** the elastically stretchable apart appendixes (10) of said body (1) are formed by the terminal, bent-over-90° lengths of two corresponding arms (11) which, in turn, make up the respective extensions of the portion (12) to be engaged with the hook (3) of the ceiling.
7. Apparatus according to claim 1, **characterized in that** the elastically stretchable appendixes (10) of said body (1) are oriented with their respective free ends disposed opposite to each other.
8. Apparatus according to claims 1 and 5, **characterized in that** the head portion of the cable retainer (7) has two surfaces (71) converging towards the outside and terminating in correspondence of said seats (70).

Patentansprüche

1. Vorrichtung zum Verankern einer Deckenlampe, die mit einer Montageeinheit (M) versehen ist, die einen Körper (1) mit zwei Ansätzen (10) umfaßt, die elastisch auseinander dehnbar und in der Lage sind, mit der Montageeinheit (M) auf zwei ihrer entsprechenden Oberflächen in Eingriff zu treten, und mit einem Teil (12) der dazu dient, mit einem Haken (3) in Eingriff zu treten, der von der Decke (4) an der gewählten Installationsstelle nach unten vorsteht, **dadurch gekennzeichnet, daß** die Montageeinheit (M) einen Kabelhalter (7) aufweist, der mit einem Ansatz (72) versehen ist, der eine Anschlußklemmplatte (73) tragen kann.
2. Vorrichtung nach Anspruch 1, **dadurch gekennzeichnet, daß** der besagte Teil (12) des Körpers (1) ösenförmig ausgebildet ist.
3. Vorrichtung nach Anspruch 1, **dadurch gekennzeichnet, daß** der besagte Teil (12) des Körpers (1) hakenförmig ausgebildet ist.
4. Vorrichtung nach Anspruch 1, **dadurch gekennzeichnet, daß** der Körper (1) aus einem einzigen, im wesentlichen gradlinigen Metallstück besteht.
5. Vorrichtung nach Anspruch 1, **dadurch gekennzeichnet, daß** die Montageeinheit (M) einen Kabelhalter (7) umfaßt, der zwei einander diametral gegenüberliegende Sitze (70) zur Aufnahme der ela-

stisch dehnbaren Ansätze (10) des Körpers (1) aufweist.

6. Vorrichtung nach Anspruch 1, **dadurch gekennzeichnet, daß** die elastisch auseinander streckbaren Ansätze (10) des Körpers (1) von den um 90° umgebogenen Endabschnitten von zwei entsprechenden Armen (11) gebildet werden, die ihrerseits die betreffenden Ansätze des Teils (12) bilden, der mit dem Haken (3) der Decke in Eingriff zu bringen ist. 10
7. Vorrichtung nach Anspruch 1, **dadurch gekennzeichnet, daß** die elastisch dehnbaren Ansätze (10) des Körpers (1) so ausgerichtet sind, daß sie mit ihren jeweiligen freien Enden in zueinander entgegengesetzte Richtungen weisen. 15
8. Vorrichtung nach Anspruch 1 und 5, **dadurch gekennzeichnet, daß** der Kopfteil des Kabelhalters (7) zwei Oberflächen (71) aufweist, die zur Außenseite hin konvergieren und im Bereich der Sitze (70) enden. 20

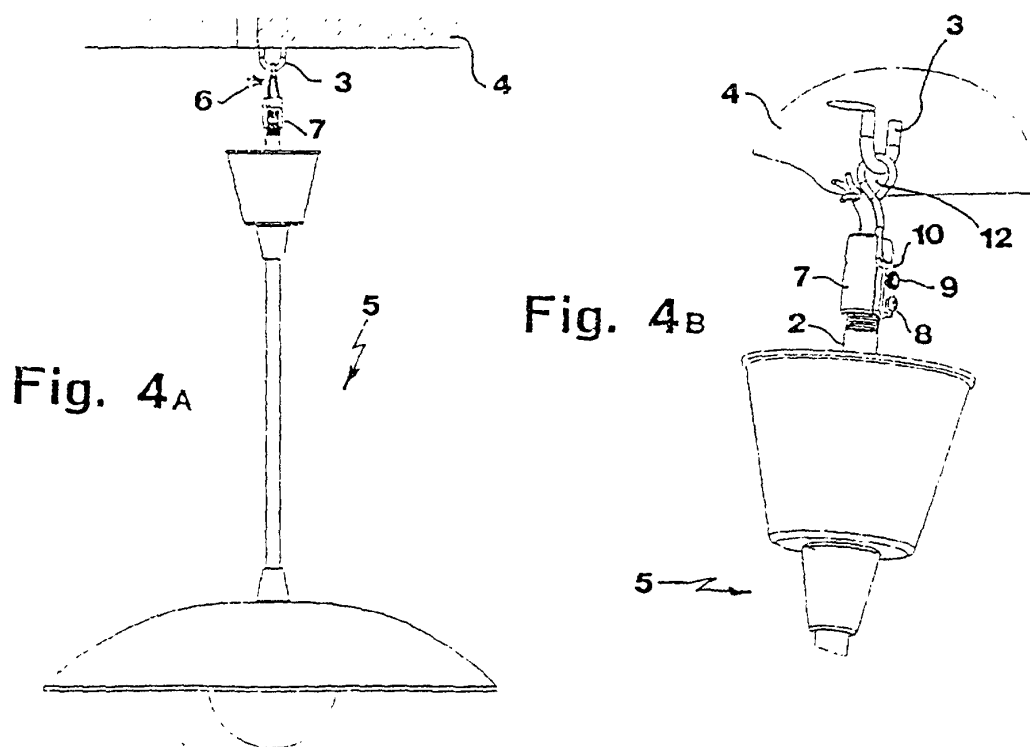
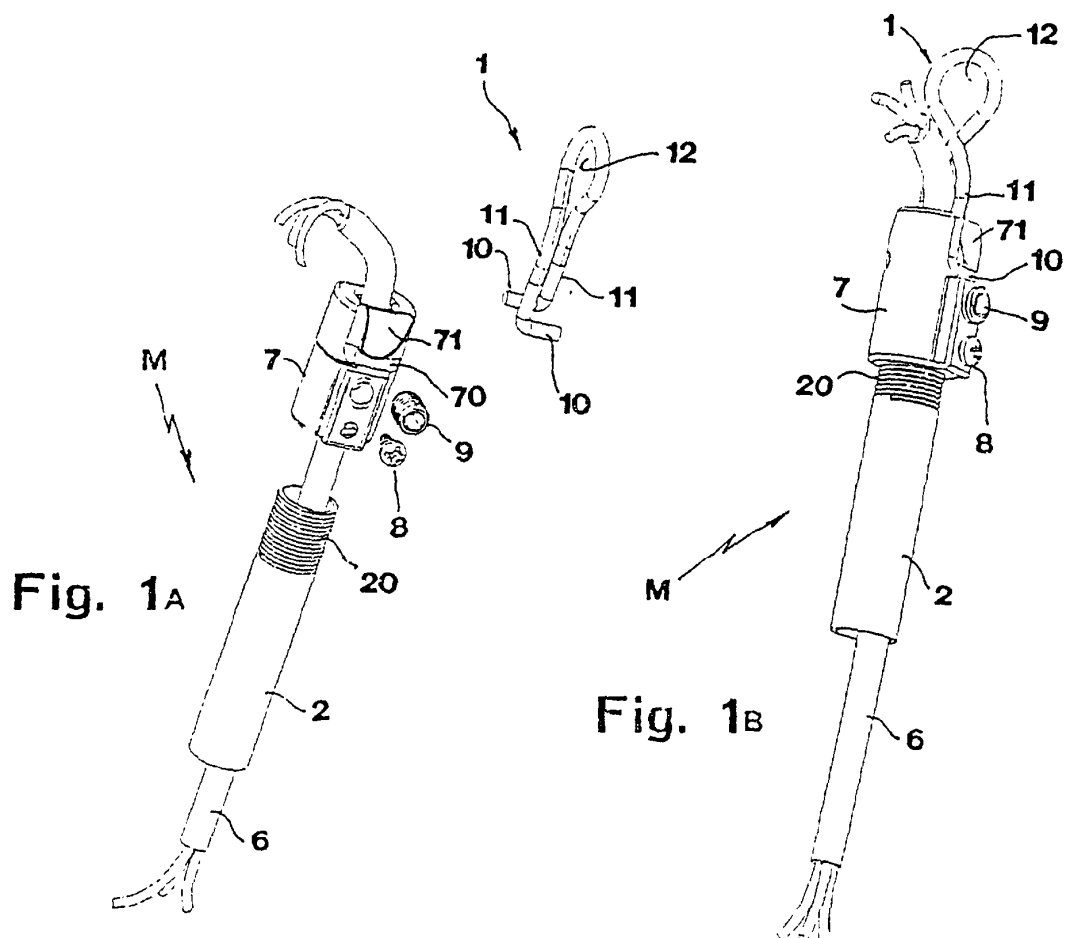
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Revendications

1. Dispositif de fixation de lustre pourvu d'une monture (M), comprenant un corps (1) avec deux appendices (10) étirables élastiquement de manière à les espacer et capables de se mettre en prise élastiquement avec la monture (M) sur deux surfaces correspondantes de celle-ci, et avec une partie (12) destinée à se mettre en prise avec un crochet (3) faisant saillie vers le bas à partir du plafond (4) en correspondance avec le site d'installation choisi, **caractérisé en ce que** la monture (M) présente un dispositif de retenue de câble (7) et ce dernier est pourvu d'un appendice (72) capable de supporter une plaque de serrage de bornes (73). 30 35 40
2. Dispositif selon la revendication 1, **caractérisé en ce que** ladite partie (12) dudit corps (1) a la forme d'un oeillet. 45
3. Dispositif selon la revendication 1, **caractérisé en ce que** ladite partie (12) dudit corps (1) a la forme d'un crochet. 50
4. Dispositif selon la revendication 1, **caractérisé en ce que** ledit corps (1) est réalisé en une pièce métallique sensiblement filiforme. 55
5. Dispositif selon la revendication 1, **caractérisé en ce que** ladite monture (M) comprend un dispositif de retenue de câble (7) qui présente deux supports diamétralement opposés (70) pour y recevoir les appendices étirables élastiquement (10) dudit

corps (1).

6. Dispositif selon la revendication 1, **caractérisé en ce que** les appendices étirables élastiquement de manière à les espacer (10) dudit corps (1) sont formés par les longueurs repliées à 90° terminales de deux bras correspondants (11) qui, à leur tour, constituent les extensions respectives de la partie (12) destinée à être mise en prise avec le crochet (3) du plafond.
7. Dispositif selon la revendication 1, **caractérisé en ce que** les appendices étirables élastiquement (10) dudit corps (1) sont orientés avec leurs extrémités libres respectives opposées l'une à l'autre.
8. Dispositif selon les revendications 1 et 5, **caractérisé en ce que** la partie avant du dispositif de retenue de câble (7) comporte deux surfaces (71) convergeant vers l'extérieur et se terminant en correspondance avec lesdits supports (70).



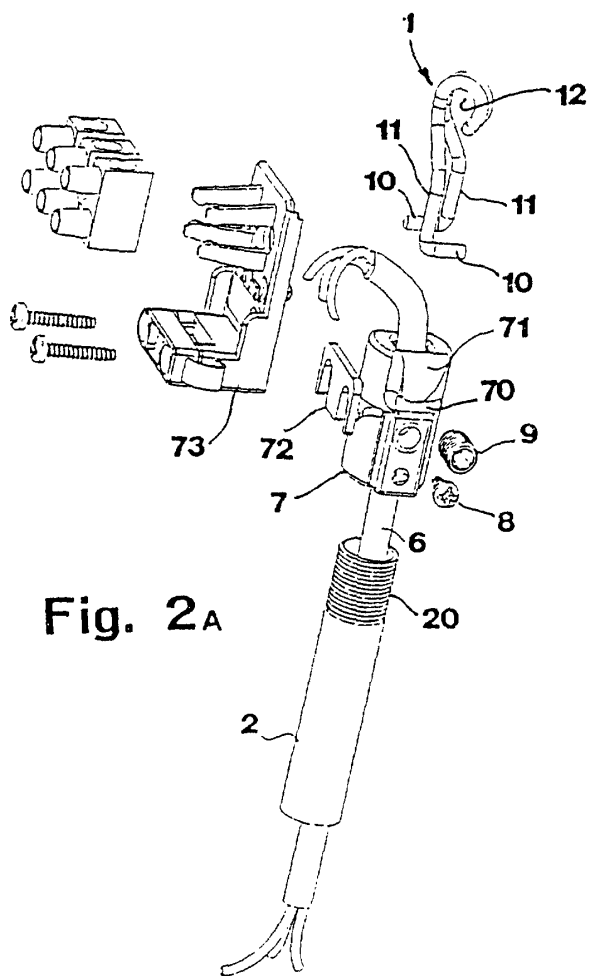


Fig. 2_A

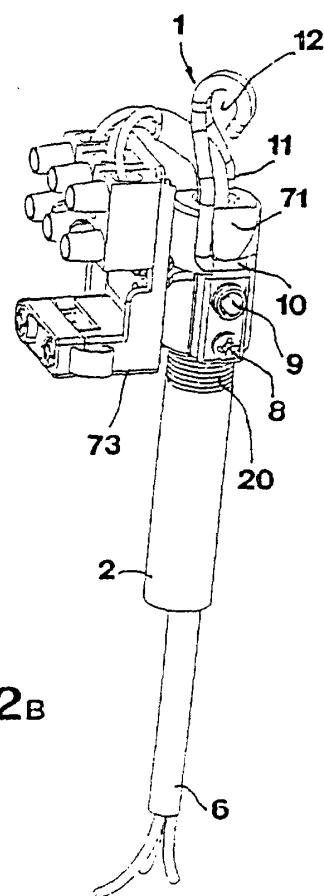


Fig. 2_B

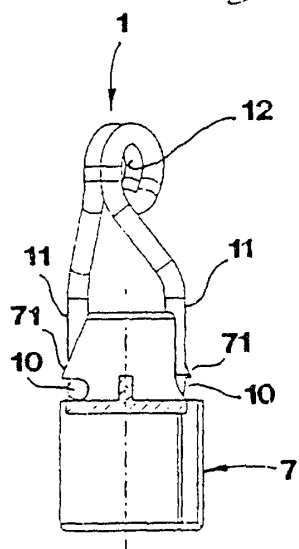


Fig. 3b

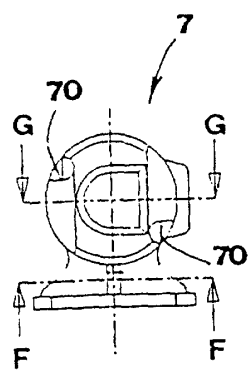


Fig. 3A

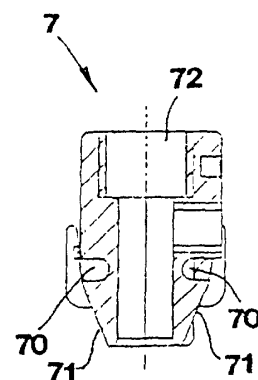


Fig. 3c