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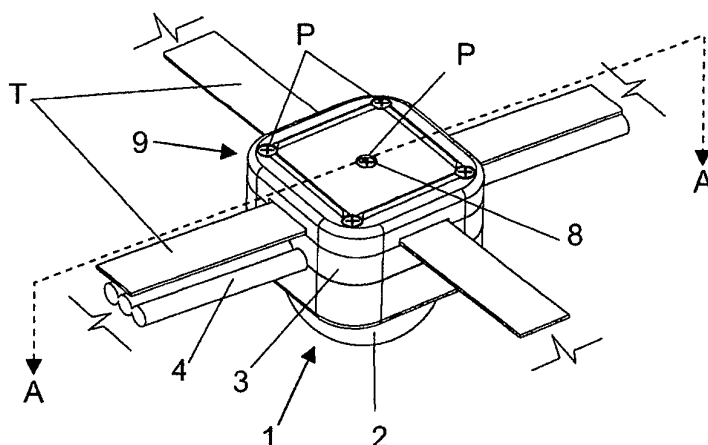
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(54) **IMPROVED LED FOR USE IN A SPORTS NET**

(57) To obtain a sports network that transmits luminous media. The present application for a utility model is formed by a "led" (1) equipped with an ogive (2) and a rear cover (3) that overlaps the electrical cables (4), which, in turn, the said rear cover (3) receives a series

of holes (5) at its vertices and a central one (6) that align with through holes (7) and central through hole (8) of a locking (9) equipped with transverse channels (10) with teeth (11), in addition to delimiting a central setback (12), while its rear face receives structural ribs (13).

FIG. 7



Description

[0001] This utility model patent application follows, formed from a LED, which allows to receive a lock by screwing, which will overlap two strips overlapping transversally (crossed), so that when distributed in column and lines, the aforementioned LED, and strips, will form a luminous sports network capable of generating visual media for advertising.

PRIOR ART

[0002] As is known in the prior art, in football match, the goal is always a target of great expectation during football events, both by the public and by the television cameras that broadcast the event. Therefore, the opportunity to broadcast advertising in these environments was perceived. Thus, sports nets with LEDs began to be idealized for different purposes in this same segment.

[0003] As a constructive example, we can cite the document "WO2016007033", TITLED "TRAINING SYSTEM INCLUDING VISUAL PRESENTATION MEANS AND OPERATION PROCESS OF THE SAID TRAINING SYSTEM", where this invention refers to a system of training for practicing and developing the skills of a player to practice at least one type of sport with a training object, such as a ball or similar. In particular, the present invention discloses a training system that provides training references, including practice targets and respective obstructions, of different shapes, dimensions, intensity, and luminous color, as well as mobile training references on at least one respective training surface arranged next to a training field, optionally on two or more training surfaces arranged adjacently and developing according to different alignments next to a respective training field. The present invention further relates to a method of operating a training system that includes displaying at least two different training references and at least one moving training reference on at least one respective training surface, optionally on two or more training surfaces arranged adjacently and developing according to different alignments next to a respective training field.

[0004] It turns out that to obtain these nets, several types of complex modifications are necessary, since it is a net that lacks a strong structure, since it receives great impacts due to the incidence of the ball, or even when the player enters the goal accidentally. Accordingly, that is, to guarantee such resistance, the nets begin to use a complex structure in addition to being made up of a series of pieces that end up becoming extremely heavy.

PATENT PURPOSE

[0005] It was with these drawbacks in mind that the inventor developed an improvement in LEDs equipped with ogives, where a lock will be screwed onto the rear cover of said LED, in order to "biting" the overlapping strips transversely (crossed), while being used and

spaced in columns and rows, it ends up forming a sports network with a series of LEDs, with less weight and highly resistant to the natural aggressions resulting from games.

[0006] Superficially explained, the present application for a utility model patent follows, to be better detailed according to the attached drawings, which can be seen:

Figure 1 - Exploded view of the lock aligned by its holes and screws to the holes in the back cover of the led.

Figure 2 - Bottom view of the latch demonstrating its central setback, as well as the teeth in their respective transverse channels.

[009] Figure 3 - Schematic view of the strips aligned with the transverse channels.

Figure 4 - Schematic view according to the previous figure, of the strips properly housed next to the transverse channels.

Figure 5, 6 and 7 Sequential view of the lock being screwed onto the back cover of the led, where the latter, ends up biting by its teeth, the surface of the strips to prevent its displacement, while in the central section, where there is an increase in the volume of material due to the overlapping of the strips, these are compensated and accommodated in the locking central setback. Simultaneously with the introduction of the central screw, the overlapping strips are perforated and joined to guarantee their definitive locking.

Figure 8 - Schematic view in section according to the AA cut indication of "figure 7", of the overlapping strips and pressed by the teeth of the transverse canals, as well as the definitive locking by the introduction of the central screw.

Figure 9 - Schematic view of a series of LEDs locked to the strips, and distributed in rows and columns, forming the sports net.

[0007] In accordance with the attached drawings, follow the "IMPROVEMENT INTRODUCED IN "LED" TO OBTAIN A SPORTS NET", formed by a "led" (1) equipped with an ogive (2) and rear cover (3) that overlaps electrical cables (4). Themselves, said rear cover (3) receives a series of holes (5) at its vertices and a central one (6) that align with through holes (7) and central through hole (8) of a locking (9) equipped with transverse channels (10) with teeth (11), in addition to delimiting a central setback (12), while on its rear face it receives structural ribs (13).

[0008] Thus constituted, for assembly, the overlapping strips (T) rest on the transverse channels (10) and remain

there on the teeth (11). Then, the locking (9) receives the face of the rear cover (3) of the LED (1) with the proper alignment of the through holes (7) and central through hole (8) of said latch (9), with the holes (5) of the vertices and central hole (6) of the back cover (3) of the led (1). In this condition, the screws (P) are inserted through the through holes "(7)" making the latch (9) be pressed along the face of the rear cover (3) of the led (1), and with that, the transverse channels teeth (10) end up "biting" the strips "(T)" partially locking them. The difference in thickness caused by the overlapping of the strips (T) is compensated by the central setback (12), and thus, with the introduction of a screw (P) in the central through hole (8), it ends up drilling the overlapping until this reaches the central hole (6) of the rear cover (3) of the led (1), causing the locking and union of both overlapping strips (T) and preventing, once and for all, any displacement of these in the face of a possible impact of the ball or even by the incidence of the player's body inside the goal.

[0009] Therefore, the present application, when a series of LEDs are locked to the strips and distributed in rows and columns, form the sports luminous net (RE), in addition to making it possible, through little material, to obtain a great locking result , resistance and lightness when compared to the total assembly of the referred net.

Claims

1. - IMPROVEMENT INTRODUCED INTO "LED" TO OBTAIN A SPORTS NET, formed by a "led" (1) equipped with an ogive (2) and a rear cover (3) that overlaps electrical cables (4) **characterized** through the rear cover (3) receive a series of holes (5) at its vertices and a central hole (6) that align with through holes (7) and central through hole (8) of a locking (9) equipped with transverse channels (10) with teeth (11), in addition to delimiting a central setback (12), while on its rear face it receives structural ribs (13).

FIG. 1

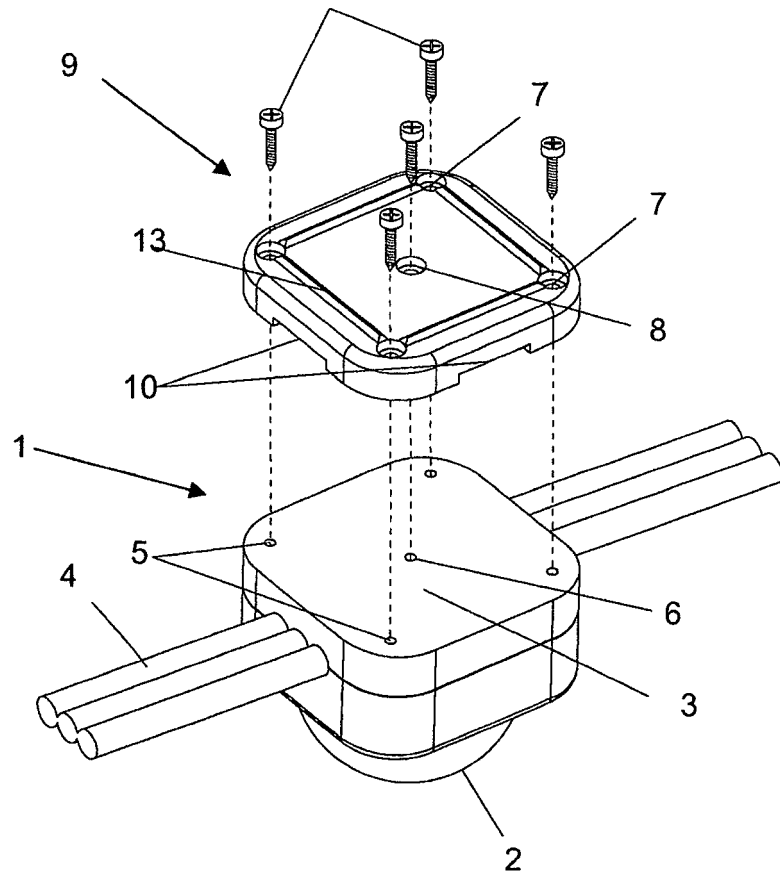


FIG. 2

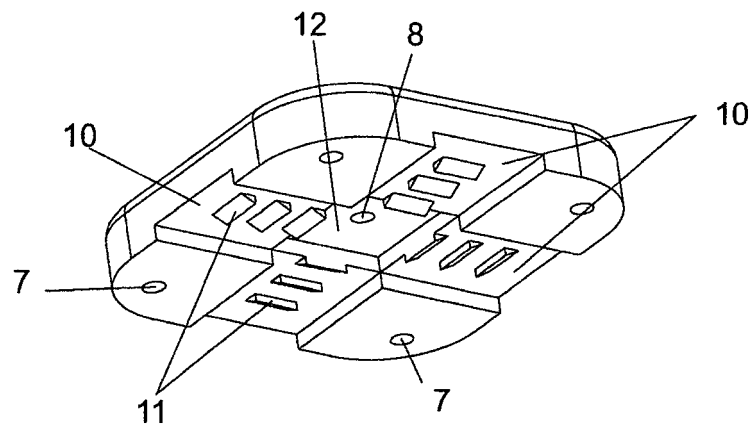


FIG. 3

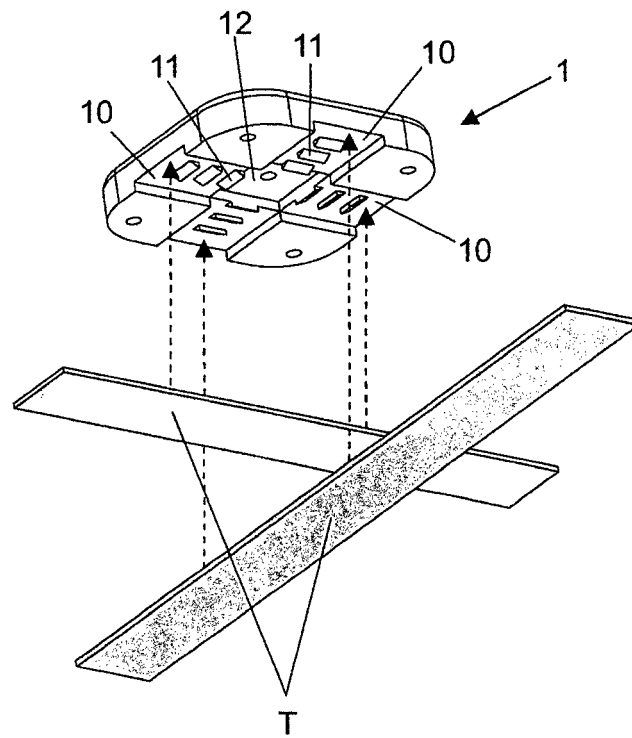


FIG. 4

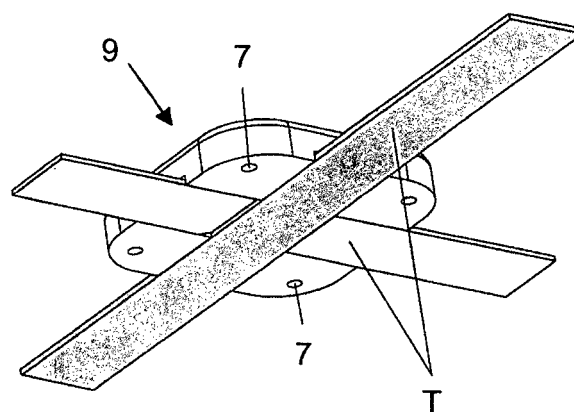


FIG. 5

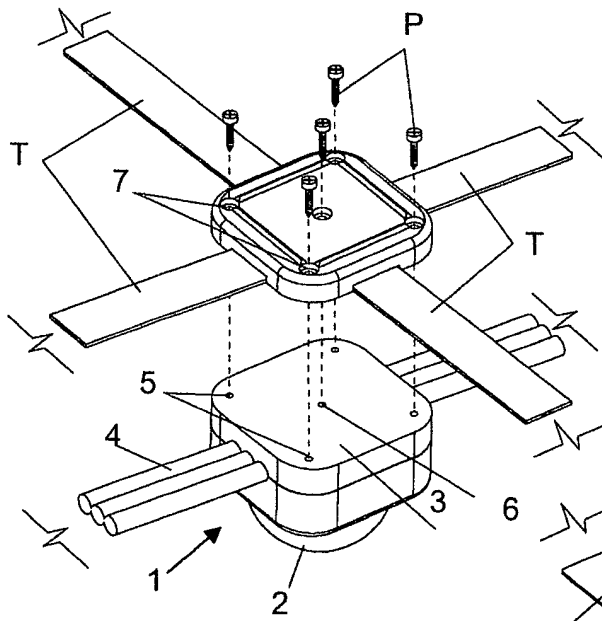


FIG. 6

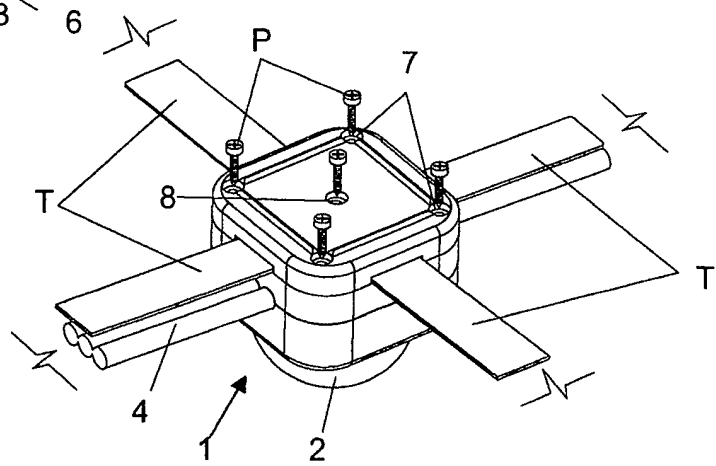


FIG. 7

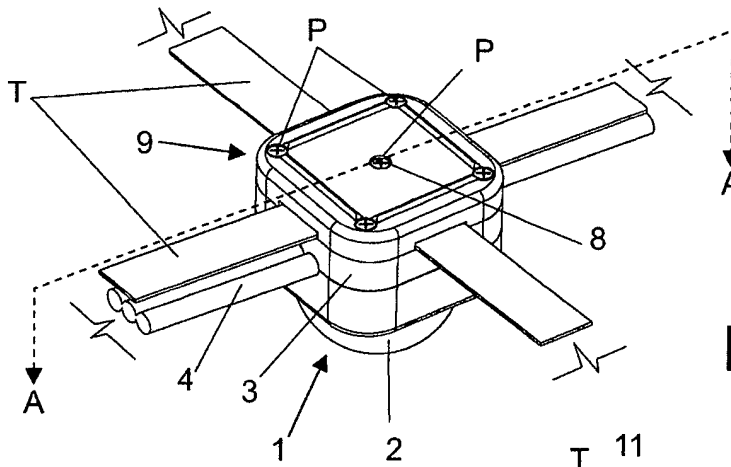


FIG. 8

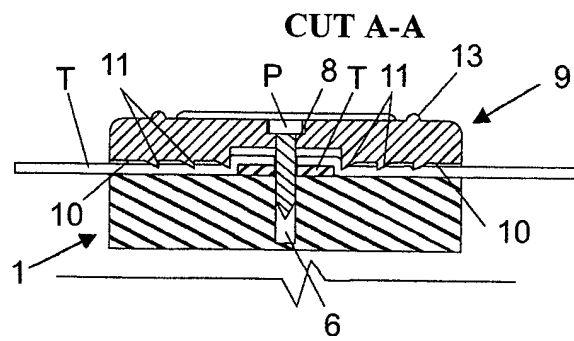
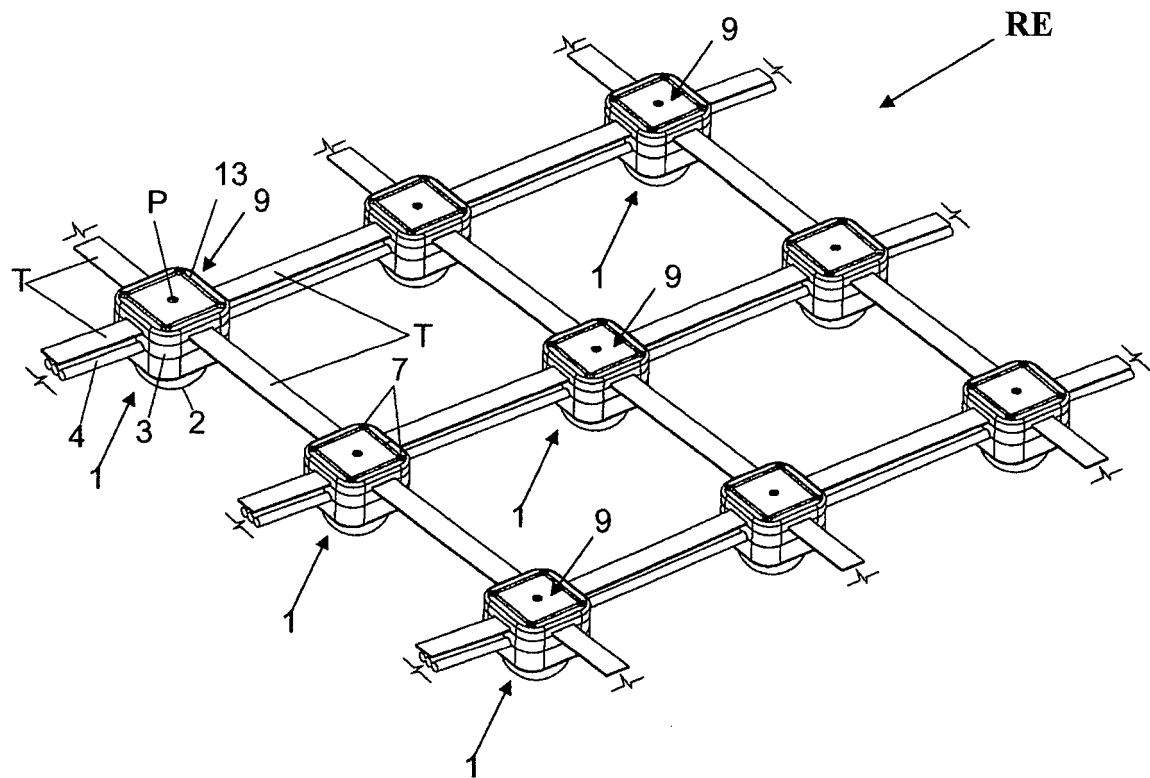


FIG. 9



INTERNATIONAL SEARCH REPORT

International application No.

PCT/BR2020/050180

A. CLASSIFICATION OF SUBJECT MATTER

IPC: G09F13/22 (2006.01)

CPC: G09F2013/222

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G09F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

ESPACENET, DERWENT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2475833 A (REES COLIN GEORGE [GB]) 08 June 2011 (2011-06-08) (pages 2 and 3, Figs 1 and 2)	1

☐ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

* Special categories of cited documents:

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Name and mailing address of the ISA/BR



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INTERNATIONAL SEARCH REPORT
Information on patent family members

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PCT/BR2020/050180

GB 2475833 A

2011-06-08

GB 0918884 D0

2009-12-16

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 2016007033 A [0003]