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(54) **Means for mounting a camera for sports coverage.**

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EP 0 345 982 B2

Description

This invention relates to sports coverage and in particular, though not exclusively, to coverage of football matches for television.

According to the invention there is provided apparatus comprising a camera for taking pictures of a game including a goal, said goal having a framework comprising goalposts and a cross bar, characterised in that the apparatus includes a housing which carries the camera and which forms part of the framework of the goal.

The housing could conveniently be a tubular element which is fitted in and replaces a section of the crossbar of an existing framework or it may replace the entire crossbar of an existing framework.

It will be understood that the term "goal" is used herein to mean generally the object at which points are scored, and this could include for example, the goalposts for football or rugby, or the goal for water polo etc.

The camera is preferably a TV camera and each goal in a game preferably has a camera.

Preferably, the housing has an outer profile which corresponds with that of a conventional framework section.

In practice, the camera is preferably mounted statically and points preferably approximately horizontally in the direction of an opposing goal. For a wide angle picture, the camera may be arranged to view through a fish-eye type lens. If the camera is one which includes operating cables, these can conveniently be fed back from the camera through the housing and via the framework, and the framework may conveniently comprise a cable conduit for this purpose. More than one camera may be used in each goal. For example, where the goal is a football goal, a second camera may be arranged pointing straight down at the goal-line.

In the alternative, it may be possible to mount the camera in such a way that it can travel within the crossbar, eg on tracks, and view through a transparent slot at any location along the crossbar.

According to the invention there is also provided use of the apparatus of the invention to provide or obtain live or recorded coverage of a game.

By way of example, an embodiment of the invention will be described with reference to the accompanying drawings, in which :

FIG. 1 illustrates the framework of a goal incorporating apparatus according to the invention, and

FIG. 2 is a detail of the apparatus of FIG. 1.

There is seen in Figure 1 the framework of a football goal 10 incorporating a housing 11. The housing 11 has mounted within it two concealed

cameras 12 and 13, one of which (12) points approximately horizontally in the direction of arrow A towards the other goal and the other (13) points straight down at the goal line. The cameras 12 and 13 here are television cameras. The housing 11 is seen in more detail in Figure 2.

The housing 11 is a tubular member having the same profile as the crossbar section, in this case, round. The housing 11 can be connected into the crossbar of a conventional framework by any suitable means. The housing 11 has internal stiffening ribs 14 for strength. The housing 11 could alternatively form the entire crossbar.

The two cameras 12 and 13 are mounted in fixed positions, ie, statically within the housing 11. Removable inspection covers 15 and 16 are provided for maintenance and repair of the cameras 12 and 13.

A fish-eye type lens 17 is arranged for one camera (12) to view through to provide a wide angle picture of goal mouth incidents. Cables 18 and 19 extending from the cameras 12 and 13 lead away through the housing 11 and via the framework, which can conveniently comprise a cable conduit for this purpose, to a station in which the picture can be transmitted, recorded etc.

It will be appreciated that sports other than football can be covered using the apparatus according to the invention, including for example, rugby, hockey, ice hockey, etc.

One of the advantages which the invention allows is the possibility to obtain pictures from much closer to the action than has hitherto been possible.

Claims

1. Apparatus comprising a camera for taking pictures of a game including a goal said goal having a framework comprising goalposts and a crossbar, characterised in that the apparatus includes a housing which carries the camera and which forms part of the framework of the goal.
2. Apparatus as claimed in Claim 1 wherein the housing has an outer profile which corresponds with that of said framework of which the housing forms part.
3. Apparatus as claimed in any preceding claim and further including conduit means for feeding operating cables for the camera via the framework to a remote location.
4. Apparatus as claimed in Claim 1 or Claim 2 characterised in that the camera is a remote-controlled camera.

5. Apparatus as claimed in any preceding claim, characterised in that said housing includes means for mounting a second camera.

6. Apparatus as claimed in Claim 5 wherein the second camera is trained to view the goal line.

7. Apparatus as claimed in any preceding claim wherein the first mentioned camera is mounted statcally pointing generally horizontally in the direction of the other goal.

8. Use of apparatus as claimed in any preceding claim to provide or obtain live or recorded coverage of a game.

Patentansprüche

1. Vorrichtung umfassend eine Kamera zum Aufnehmen von Bildern eines Spiels, das ein Tor einschließt, wobei genanntes Tor ein Rahmenwerk umfassend Torpfosten und eine Querlatte hat, dadurch gekennzeichnet, daß die Vorrichtung ein Gehäuse einschließt, das die Kamera trägt und das Teil des Rahmenwerks des Tors bildet.

2. Vorrichtung nach Anspruch 1, bei der das Gehäuse ein äußeres Profil hat, das demjenigen des genannten Rahmenwerks entspricht, Teil dessen das Gehäuse bildet.

3. Vorrichtung nach einem vorangehenden Anspruch, das weiter Kanalmittel zum Einführen von Betriebskabeln für die Kamera über das Rahmenwerk zu einem entfernten Ort einschließt.

4. Vorrichtung nach Anspruch 1 oder 2, dadurch gekennzeichnet, daß die Kamera eine ferngesteuerte Kamera ist.

5. Vorrichtung nach einem vorangehenden Anspruch, dadurch gekennzeichnet, daß das genannte Gehäuse Mittel zum Montieren einer zweiten Kamera aufweist.

6. Vorrichtung nach Anspruch 5, bei der die zweite Kamera so ausgebildet ist, daß sie zur Torlinie blickt.

7. Vorrichtung nach einem vorangehenden Anspruch, bei der die erstgenannte Kamera statisch montiert ist und allgemein horizontal in Richtung des anderen Tors zeigt.

8. Verwendung einer Vorrichtung nach einem vorangehenden Anspruch, um Originalfassung

oder aufgezeichnete Erfassung eines Spiels zu schaffen oder zu erhalten.

Revendications

1. Appareil comprenant une caméra pour prendre des vues d'un jeu comprenant un but, ledit but ayant un encadrement composé de poteaux et d'une barre transversale, caractérisé en ce que l'appareil comprend un boîtier qui supporte la caméra et qui fait partie intégrante de l'encadrement du but.

2. Appareil selon la revendication 1 dans lequel le boîtier présente un profil extérieur qui correspond à celui dudit encadrement dont le boîtier fait partie.

3. Appareil selon l'une quelconque des revendications précédentes et comprenant en outre un conduit pour amener des câbles de fonctionnement pour la caméra via l'encadrement jusqu'à un endroit éloigné.

4. Appareil selon la revendication 1 ou 2 caractérisé en ce que la caméra est une caméra télécommandée.

5. Appareil selon l'une quelconque des revendications précédentes, caractérisé en ce que ledit boîtier comprend un moyen pour monter une seconde caméra.

6. Appareil selon la revendication 5 dans lequel la seconde caméra est disposée de manière à viser la ligne de but.

7. Appareil selon l'une quelconque des revendications précédentes dans lequel la première caméra mentionnée est montée statiquement, pointée en général horizontalement dans la direction de l'autre but.

8. Utilisation de l'appareil selon l'une quelconque des revendications précédentes pour fournir ou obtenir une retransmission d'une rencontre sportive en direct ou en différé.

